

#### REQUEST FOR PROPOSALS

For

## Artificial Intelligence (AI) Solutions for Public Sector Entities RFP # 2025-018

Sealed proposals will be accepted until 2:00 PM CT, January 17, 2025, and then publicly opened and read aloud thereafter.

Data Surge LLC		
Legal Name of Proposing Firm		
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Contact Person for This Proposal	Title	
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Acknowledgment of Addenda (initial): #1	#2#3#4#5	

**COVER SHEET** 

NOTE: Any confidential/proprietary information must be clearly labeled as "confidential/proprietary". All

proposals are subject to the Texas Public Information Act.



## Data Surge LLC

Response to Request for Proposals #2025-018
Artificial Intelligence (AI) Solutions for Public Sector Entities

Primary Contact: Anu Jekal, 916.903.8381 | Anu@DataSurge.com

Data Surge LLC | 8(a) Certified | WOSB Certified | www.DataSurge.com

NAICS: 518210, 541511, 541512, 611420, 541618, 541690, 541990, 541611

#### **Transmittal**

North Central Texas Council of Governments (NCTCOG)

TXShare Cooperative Purchasing Program

616 Six Flags Drive, Centerpoint Two, Arlington, TX 76011

**Subject:** Proposal Submission – RFP #2025-018: Artificial Intelligence (AI) Solutions for Public Sector Entities

#### **Dear Evaluation Committee**,

Data Surge LLC (Data Surge) is pleased to submit our proposal in response to RFP #2025-018: Artificial Intelligence (AI) Solutions for Public Sector Entities. As an 8(a) certified Woman-Owned Small Business (WOSB) specializing in AI-driven solutions, we bring extensive experience in machine learning, data engineering, and cloud computing to support NCTCOG's TXShare Cooperative Purchasing Program.

Our proposal outlines comprehensive AI solutions addressing key government challenges, including administration, economic development, municipal operations, cybersecurity, and citizen engagement. Utilizing industry-leading platforms like Databricks, Azure, and AWS, our **Solution Accelerator** products and services ensure scalability, security, and compliance with regulations such as GDPR, HIPAA, and the Texas Privacy Protection Act.

We understand the mission of NCTCOG and TXShare to provide cost-effective solutions to municipalities, counties, and school districts across Texas. Our **pre-built** solution accelerators (**ResQAI**, **EntityStream**, **LinkGraph**) allow rapid deployment with customization flexibility.

We accept all terms in the solicitation, including administrative fees, contract reporting, and data governance policies. Data Surge is committed to delivering AI solutions that enhance operational efficiency and service delivery for public sector entities.

We appreciate the opportunity to participate in this procurement and look forward to potentially serving the NCTCOG community. Please contact me with any questions or requests for clarification.

Sincerely,

Anu Jekal

Chief Managing Member, Data Surge LLC

Anu@DataSurge.com | 703-629-2229



#### 1.1 Certificate of Offeror

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## 2 Executive Summary

At Data Surge LLC (Data Surge), we specialize in delivering AI-driven solutions that transform government operations, streamline processes, and enhance decision-making. As an 8(a) certified woman-owned small business, we bring a deep understanding of public sector challenges and a proven track record of implementing innovative, scalable, and secure AI technologies.

Our approach is built on transparency, ethical AI practices, and regulatory compliance, ensuring that our solutions align with state and federal standards. By leveraging advanced methodologies such as **Agile** and **Scrum** alongside industry-leading platforms like **Databricks**, **Azure**, and **AWS**, we develop adaptive solutions that empower government agencies to modernize their operations with confidence.

### **Core Competencies**

Data Surge provides expertise in:

- Artificial Intelligence & Machine Learning (AI/ML): Custom AI models, natural language processing (NLP), and predictive analytics for automation and insight generation.
- **Data Engineering & Integration:** Real-time data ingestion, streaming, and transformation to support enterprise data management.
- Regulatory & Legislative Process Automation: AI-powered document analysis and automated report generation for policy evaluation and compliance.
- **Identity Resolution & Fraud Detection:** Advanced entity resolution and link analysis for risk assessment and data integrity.
- Cloud & DevSecOps: Secure, scalable cloud solutions with automated infrastructure, CI/CD, and compliance-driven security measures.

## **Proven Experience & Scalable Solutions**

Data Surge has successfully implemented AI-powered solutions for **federal** and **commercial** clients across domains such as immigration services, financial market regulation, predictive maintenance, and automated decision support. Our **Solution Accelerators—ResQAI**, **EntityStream**, and **LinkGraph**—enable rapid deployment of **AI/ML** functionalities while allowing flexibility for customization to meet specific agency needs. When projects require custom development, we leverage the **Databricks Lakehouse** architecture to build advanced AI solutions that integrate seamlessly with existing government systems.

## Value Proposition

- **Rapid Deployment:** Solution Accelerators enable faster implementation with reduced development cycles.
- **AI-Driven Automation:** Predictive analytics and NLP improve efficiency, decision-making, and risk mitigation.



- **Cost Optimization:** Streamlined workflows and cloud-native architectures reduce operational costs while maintaining performance.
- Scalability & Security: Cloud-based solutions ensure future-ready, compliant, and adaptable AI-driven infrastructures.

#### **Commitment to Public Sector Innovation**

With a strong focus on supporting government agencies like the **North Central Texas Council of Governments (NCTCOG)**, Data Surge is dedicated to delivering secure, ethical, and high-impact AI solutions. Our expertise in data-driven modernization ensures sustainable transformation, empowering agencies with AI tools that drive operational excellence while meeting mission-critical objectives.

By integrating AI, real-time data processing, and scalable cloud technologies, Data Surge stands as a trusted partner in revolutionizing public sector services.

## 3 Technical Proposal

### 3.1 Overview of Data Surge Solutions and Services

At Data Surge LLC, we specialize in delivering cutting-edge AI and data-driven solutions designed to meet the diverse and evolving needs of government agencies. Leveraging our expertise in advanced technologies and decades of combined experience, we provide two core approaches to address operational challenges effectively: pre-configured solution accelerators and tailored professional services.

Our **Solution Accelerators** offer pre-built, rapidly deployable AI/ML capabilities that address many common agency requirements. These accelerators, such as ResQAI, EntityStream, and LinkGraph, are designed for seamless integration, enabling agencies to achieve immediate results with minimal customization. They provide cost-effective, scalable tools that optimize operations while adhering to strict compliance and security standards.

For more unique or complex requirements, we deliver **custom solutions** developed on the Databricks Lakehouse platform. These tailored implementations allow us to address specific challenges, such as advanced machine learning workflows, real-time analytics, and integration with legacy systems. Delivered as a professional consulting service, our custom solutions ensure alignment with agency goals while maintaining a focus on quality, compliance, and scalability.

We employ a hybrid delivery model that balances efficiency with collaboration. While most of our projects are conducted remotely, we prioritize regular on-site planning meetings and maintain a robust schedule of virtual engagements for requirements gathering, progress updates, and delivery reporting. This approach ensures transparency, accountability, and clear communication throughout the project lifecycle.

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With our comprehensive range of solutions and commitment to innovation, Data Surge stands ready to empower agencies with the tools they need to drive efficiency, enhance decision-making, and achieve mission-critical objectives. All of our solutions are companioned with our requirements analysis, development, implementation, quality assurance, and continued operation support services.

## 3.2 Technologies Offered by Data Surge

All challenge-specific solutions in this proposal align with one or more of Data Surge's core product and service categories, ensuring a structured and effective approach to solving key challenges:

- **ResQAI:** AI-driven document retrieval, summarization, and automated analysis for legislative, regulatory, and compliance workflows.
- EntityStream: Real-time entity resolution and identity management for structured and unstructured data, enabling deduplication, record linkage, and data integrity.
- **LinkGraph:** Advanced relationship analytics and knowledge graph technology for uncovering hidden connections, detecting anomalies, and enhancing investigative capabilities.
- **Databricks:** Enterprise-scale data engineering, machine learning, and analytics powered by the Databricks Lakehouse architecture for optimal performance, governance, and scalability.
- **Hybrid Solutions:** Custom integrations combining AI, data streaming, and cloud technologies to meet the unique needs of government agencies and regulatory bodies.

Each proposed solution is strategically mapped to one or more of these categories, ensuring alignment with the Department's objectives while leveraging proven, scalable, and future-ready technology.

## ResQAI: Revolutionizing Knowledge Management

Leveraging the best-in-class retrieval-augmented generation (RAG) paradigm, ResQAI uses a knowledge base together with large language models (LLMs) for conversational access to information. This enhances data transparency, accuracy, and accessibility for more effective research.

Example use cases include:

- Strategic Administration: Instant access to datasets for policy and decision support.
- Judicial Support: Quick retrieval of case laws for improved legal access.
- **Utility Billing:** Real-time responses to billing inquiries.

#### **EntityStream: Real-Time Entity Resolution**



**EntityStream** unifies data across systems in real time for a single actionable view, enhancing operational efficiency and consistency. Key uses include:

- **Performance Tracking:** Aggregating metrics for better governance.
- Case Management: Ensuring accurate judicial processing.
- Utility Operations: Automating data for inquiries and personalized service.

## LinkGraph: Revealing Data Relationships

LinkGraph uncovers patterns in datasets to reveal critical insights and enable data-driven decision-making. Example use cases include:

- **Economic Development:** Analyzing trends in business ecosystems.
- Maintenance Operations: Detecting patterns for proactive maintenance.

### **Databricks: AI and Analytics Platform**

**Databricks** is key to our technology suite, offering real-time analytics, predictive modeling, and data integration. We use it to help agencies:

- Streamline Analytics: Process data for actionable insights.
- Enhance Predictive Models: Build machine learning models to forecast trends.
- Unify Data: Integrate datasets from disparate systems to break down data silos.

## 3.3 Services Offered by Data Surge

Data Surge LLC provides specialized professional services designed to empower government agencies and enterprises with cutting-edge AI, data engineering, and advanced analytics solutions. Our expertise spans across data modernization, machine learning, cloud integration, and automation, ensuring seamless digital transformation and optimized decision-making processes.

#### 3.3.1 Core Professional Services

- AI & Machine Learning Development: Implementation of AI-driven solutions, including natural language processing (NLP), predictive analytics, entity resolution, and knowledge graphs to enhance automation, accuracy, and efficiency.
- **Data Engineering & Integration:** Design and deployment of scalable data pipelines, real-time data streaming, and cloud-based architectures leveraging platforms such as Databricks, Azure, and AWS to facilitate enterprise-wide data management.
- Legislative & Regulatory Process Automation: AI-powered document analysis, summarization, and automated report generation to streamline government compliance and policy evaluation processes.

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- Identity Resolution & Fraud Detection: Advanced entity resolution and link analysis using machine learning models to detect fraud, assess risk, and improve data integrity across agencies and regulatory bodies.
- Cloud Infrastructure & DevSecOps: Implementation of secure, scalable cloud solutions with automated infrastructure provisioning, continuous integration/deployment (CI/CD), and compliance-driven security protocols.
- Advanced Data Analytics & Visualization: Development of custom dashboards, realtime reporting, and AI-enhanced insights for government and commercial clients to drive data-driven strategies.
- **Digital Transformation Consulting:** Strategic advisory services for AI adoption, data governance, and operational modernization to ensure seamless integration of emerging technologies into legacy systems.

With a proven track record of delivering high-impact solutions for federal, state, and commercial clients, Data Surge is committed to driving innovation, operational excellence, and long-term success through our professional services.

## 3.4 Challenge-Specific Solutions (Organized by Section 5.1 of RFP)

Government agencies require cutting-edge solutions to address complex operational challenges, improve efficiency, and ensure data-driven decision-making. At Data Surge, we specialize in delivering AI-powered and data-centric technologies that transform workflows and enhance analytical capabilities. Our solutions are tailored to the specific needs of each project while remaining scalable, secure, and adaptable to future requirements.

#### 3.4.1 Administration

AI significantly enhances city governance by facilitating data-driven decision-making and improving policy analysis.

Data Surge integrates advanced AI technologies with robust data platforms to meet these needs effectively. Our strategic planning and policy analysis tools include **ResQAI**, a conversational AI tool that provides instant insights into datasets, helping policymakers evaluate regulations and align strategies with city goals. We utilize the **Databricks Lakehouse** to unify diverse datasets for thorough analysis, allowing officials to simulate policy impacts and refine strategies based on real-time data.

For performance tracking, **EntityStream** consolidates metrics into a unified dashboard for a comprehensive view of city operations, simplifying KPI tracking. Additionally, **Databricks** offers predictive analytics for identifying performance trends, assisting cities in benchmarking progress and adapting strategies.

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Our solutions empower city officials with AI-driven insights and collaborative workflows, fostering accountability and informed governance by combining **ResQAI**, **EntityStream**, and **Databricks Lakehouse** to enhance strategic planning, policy analysis, and decision-making.

## 3.4.2 Development Services

AI enhances development services by streamlining permit applications, automating inspection scheduling, and improving communication with developers and residents. Data Surge combines **solution accelerators**, a robust data platform, and AI-driven chat interfaces to address these needs. Our **EntityStream accelerator** resolves permit applicant data in real-time, integrating information from municipal sources to eliminate redundancies and reduce manual entry. This unification facilitates compliance checks and accurate application reviews, creating efficient workflows.

The **Databricks Lakehouse Platform** automates complex workflows, using predictive analytics for optimal resource allocation and dynamic inspection scheduling. It supports NLP integrated chatbots for booking inspections, reducing conflicts and ensuring compliance. **EntityStream** also improves communication by consolidating data across channels, providing real-time updates and personalized notifications. AI-driven chat windows offer instant access to status updates and application guidance, while data analytics reveal trends and create insightful dashboards. By integrating these technologies, Data Surge delivers scalable solutions that streamline processes, optimize resources, and enhance communication, helping municipalities serve communities effectively and support sustainable growth.

#### 3.4.3 Event Center

Data Surge enhances event centers with AI-driven solutions that boost customer engagement, streamline ticketing, and optimize event management.

The **ResQAI** solution creates a knowledge base integrated with AI chatbots on the event center's website. This offers instant, personalized assistance—answering questions, recommending events, and guiding ticket purchases to improve user experience and reduce support workload.

The **Databricks Lakehouse Platform** analyzes data to optimize ticketing processes. It improves pricing strategies, forecasts demand and allocates resources effectively. AI chatbots assist with purchases and manage updates seamlessly.

For event management, Databricks provides analytics to enhance planning and execution based on feedback and trends. Predictive modeling helps manage attendance peaks, while **ResQAI** offers real-time guidance to staff, ensuring smooth operations.

By integrating **ResQAI**, the **Databricks Lakehouse Platform**, and AI chatbots, Data Surge empowers event centers with superior customer experiences, efficient ticketing systems, and optimized resource management.

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## 3.4.4 Economic Development

AI solutions are key to transforming economic development by modernizing municipal resources, attracting investment, facilitating business growth, and streamlining processes. Data Surge provides tools for insights, engagement, and operational support to drive growth.

The **LinkGraph** accelerator leverages graph data science to analyze economic datasets, identifying strategic opportunities for municipalities. It helps target non-local investors by offering insights into local resources such as available land, transportation hubs, utilities, and skilled labor. Visualizing these relationships enhances data-driven decision-making.

The **Databricks Lakehouse Platform** integrates and analyzes economic data to predict growth sectors and automate processes, thereby reducing bureaucracy and fostering a business-friendly environment.

AI-powered chatbots, powered by **ResQAI**, enhance accessibility and transparency for investors by providing real-time responses and vital information. This builds trust and reduces response times.

Overall, LinkGraph, the Databricks Lakehouse Platform, and ResQAI technologies offer a scalable solution for economic development.

### 3.4.5 Finance and Budget

AI solutions transform municipal finance by enhancing forecasting, optimizing budgets, detecting anomalies, and improving management. Data Surge provides tools to support fiscal responsibility and efficiency.

The **Databricks Lakehouse Platform** integrates datasets to deliver accurate financial forecasts and budget optimization, aligning budgets with community goals through AI models and scenario simulations.

For anomaly detection, the **EntityStream** accelerator identifies financial irregularities in real time, reducing risks. Databricks enhances this with continuous monitoring and early warnings.

**EntityStream** also streamlines financial management and reporting by consolidating data, automating reconciliation, and reporting. **Databricks** provides dynamic dashboards for real-time insights, supporting informed decision-making.

By integrating **EntityStream** and **Databricks**, we offer AI-driven insights that improve resource allocation and transparency. This comprehensive solution fosters sustainable growth and enhances public trust.

## 3.4.6 1.1.1 Human Resources (HR)

AI solutions revolutionize HR by automating processes, boosting engagement, and optimizing recruitment. Data Surge provides tailored tools for government agencies.



The **ResQAI** accelerator automates knowledge retrieval using secure chatbots, enabling HR to efficiently access policy and benefits information without extensive research. It processes complex documents to offer summarized insights. Meanwhile, **Databricks** leverages machine learning to analyze workforce trends and optimize resources.

**ResQAI** chatbots also enhance employee engagement by providing instant HR information, promoting self-service and interaction. **Databricks** analyzes feedback to gain satisfaction insights, aiding in morale improvement.

In recruitment and onboarding, **ResQAI** streamlines processes through the automated retrieval of job information. Databricks improves candidate screening and hiring forecasts, which enhances retention rates.

To strengthen IT and cybersecurity for HR systems, **EntityStream** ensures system security and functionality, while Databricks enhances threat detection and compliance, safeguarding sensitive data.

These tools automate operations and boost efficiency, supporting HR's critical goals and compliance requirements.

## 3.4.7 Information Technology and Cyber Security (IT)

AI solutions streamline IT tasks and bolster cybersecurity. Data Surge, in partnership with CI Discern, provides AI-powered protection for critical infrastructure like water and electrical utilities.

**EntityStream** automates IT Help Desk tasks, efficiently managing routine support with AI chatbots. **Databricks** analyzes workflows to suggest improvements and predict performance issues.

By partnering with CI Discern, Data Surge deploys AI for real-time threat detection and vulnerability management. Databricks processes data using machine learning to enhance cyber defenses.

**EntityStream** also automates IT documentation to accelerate incident response, while Databricks assists in audits and compliance. CI Discern focuses on securing critical infrastructure.

Integrating EntityStream, Databricks, and partnering with CI Discern's cyber expertise ensures scalable IT and cybersecurity solutions that automate tasks and protect essential infrastructure.

## 3.4.8 Library Services

Municipal libraries play a vital role in enriching communities. AI enhances library services by offering personalized experiences, improved searches, and automated assistance, keeping libraries innovative and accessible.

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**ResQAI** provides personalized recommendations, while **Databricks** aligns collections with community interests, enhancing the user experience.

For catalog searches, ResQAI supports natural language queries, and Databricks ensures comprehensive catalog management.

**ResQAI** chatbots deliver 24/7 support, simplifying catalog navigation and resource access for users.

By integrating **ResQAI** and **Databricks**, libraries boost efficiency and strengthen community engagement.

## 3.4.9 Municipal Courts

AI revolutionizes municipal courts by enhancing case management, automating inquiries, summarizing complex case filing histories, and improving access to legal information. Data Surge offers AI tools that align with best practices to streamline operations and build public trust.

The **Databricks Lakehouse Platform** leverages AI to analyze case histories, optimize workflows, and reduce administrative tasks. It integrates with cloud-based systems for real-time updates, ensuring prompt justice delivery.

**ResQAI** automates responses to routine inquiries, reducing the need for calls and walk-ins. It also assists users in understanding legal documents and procedural requirements.

**ResQAI** enables 24/7 access to case information and court policies via chatbots, guiding users on procedures, rights, and self-help resources, thereby enhancing transparency and accessibility.

Data Surge upholds best practices in case management, technology integration, transparency, and ethical standards by ensuring AI tools remain unbiased and secure.

The integration of **ResQAI** and **Databricks** allows Data Surge to modernize court operations, boosting efficiency, fairness, and transparency.

#### 3.4.10 Parks and Recreation

Municipal parks and recreation departments encounter challenges related to budget, access, maintenance, and engagement. AI enhances program management, streamlines registration, and offers personalized activity recommendations. Data Surge provides solutions to optimize resources and improve user experiences.

The **Databricks Lakehouse Platform** enhances program management by using analytics to identify underutilized programs and optimize scheduling, maximizing attendance while staying within budget constraints.

**ResQAI** chatbots simplify the registration process with real-time assistance, reducing staff workload and improving user convenience.

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**ResQAI** also provides activity recommendations tailored to individual interests, boosting engagement and service utilization.

AI effectively addresses key challenges such as budget constraints, equity, maintenance, and engagement by optimizing resources and promoting community inclusivity.

#### 3.4.11 1.1.1 Parks Maintenance

Municipal parks tackle maintenance challenges using AI solutions for scheduling, resource allocation, and communication, ensuring safety and accessibility.

The **Databricks Lakehouse Platform** improves maintenance scheduling by analyzing maintenance records and weather forecasts, which helps prevent costly repairs.

**EntityStream** optimizes resource allocation by tracking resources in real-time and reallocating them based on demand, ensuring effective budget management.

**ResQAI** chatbots facilitate better communication with residents by providing real-time park updates, enabling park reservation scheduling, permitting issue reporting, and enhancing transparency and engagement.

AI addresses common challenges by reducing costs, meeting infrastructure needs, and encouraging community involvement through improved communication and maintenance.

By integrating EntityStream, Databricks, and ResQAI, municipalities can ensure parks remain well-maintained and vibrant.

#### 3.4.12 Public Works

Municipal public works departments face challenges such as budget constraints, aging infrastructure, resource limitations, and the need for effective community engagement. Data Surge offers AI-driven solutions to optimize project schedules, manage resources efficiently, and enhance communication with residents, ensuring public infrastructure projects are completed on time, within budget, and aligned with community needs.

The **Databricks Lakehouse Platform** helps public works departments use predictive analytics for effective project scheduling. By analyzing historical data, current timelines, and factors like weather or supply chain disruptions, Databricks can anticipate delays and recommend adjustments. This includes prioritizing critical tasks, allocating resources to high-priority projects, and developing accurate project completion forecasts, ensuring transparency and accountability. This data-driven approach minimizes inefficiencies and ensures smooth project progress.

The **EntityStream** solution streamlines resource management by providing real-time tracking and allocation of personnel, equipment, and materials. It identifies underutilized resources and reallocates them to priority tasks, tracks equipment usage and maintenance needs, and enables

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dynamic resource adjustments, ensuring optimal use of budgets and staff. Automation of these processes helps reduce waste, improve productivity, and maintain high-quality infrastructure.

Effective communication with residents is crucial for public works projects. AI-powered chatbots and portals, driven by **ResQAI**, offer real-time updates on project progress, road closures, and service disruptions. They provide an intuitive platform for reporting issues like potholes, ensuring prompt resolution, and personalized notifications based on user preferences. These tools foster trust and engagement by keeping residents informed and involved.

Data Surge's solutions address common challenges in public works:

- **Budget Constraints:** Predictive analytics and resource optimization reduce costs by preventing delays and minimizing inefficiencies.
- **Aging Infrastructure:** AI tools help prioritize maintenance and repairs for critical infrastructure, ensuring safety and reliability.
- **Supply Chain Disruptions:** Real-time monitoring and forecasting adjust project plans to account for delays and rising material costs.
- **Community Engagement:** Interactive communication platforms ensure residents are informed and empowered to participate in initiatives.

By integrating EntityStream, the Databricks Lakehouse Platform, and ResQAI, Data Surge delivers a comprehensive approach to optimizing project schedules, managing resources, and improving communication.

## 3.4.13 Utility Billing

Municipal utility billing systems manage services such as water, electricity, and gas, facing challenges like inaccurate billing and customer disputes. AI solutions help automate inquiries, streamline payments, and offer real-time utility updates. Data Surge enhances these systems to improve customer satisfaction.

**ResQAI** virtual assistants automate billing inquiries, reducing the burden on customer service and resolving disputes efficiently, allowing staff to address more complex issues.

The **Databricks Lakehouse Platform** streamlines payment processes using AI analytics to automate reminders, detect anomalies, and enable seamless payments.

For real-time utility usage, Data Surge solutions provide insights through **Databricks**, offering personalized dashboards and alerts that enhance transparency and encourage conservation.

AI solutions address common utility billing challenges by ensuring accurate billing, improving customer support, modernizing systems, and simplifying online billing.

By combining **ResQAI** and **Databricks**, Data Surge offers AI-driven solutions for inquiries, payments, and real-time updates, boosting efficiency and customer relationships.

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#### 3.4.14 Visitors Bureau

Visitor centers face challenges such as staffing constraints and outdated technology. AI-driven solutions enhance engagement, provide personalized recommendations, and improve management, with Data Surge LLC helping modernize services to boost tourism.

**ResQAI**-powered kiosks offer real-time assistance, wayfinding, and multilingual support, thereby improving the visitor experience and satisfaction. AI analyzes visitor preferences to deliver tailored suggestions, itineraries, and real-time updates, which encourage repeat visits.

The **Databricks Lakehouse Platform** processes data for strategic decision-making and feedback analysis, enhancing responsiveness to and alignment with tourist needs.

AI-driven solutions address staffing issues by resolving commonly recurring inquiries and optimize resource use for visitor bureaus through 24/7 online response capabilities.

By integrating **ResQAI** and **Databricks**, Data Surge transforms operations, boosting engagement and supporting the local economy.

## 3.5 Implementation Approach

### 3.5.1 Implementation Strategy

Data Surge's implementation emphasizes flexibility, collaboration, and preparation to minimize disruption and maximize value.

The Data Surge **hybrid delivery model** balances onsite collaboration with remote support, allowing direct engagement during critical phases while utilizing remote resources for development and support to reduce costs and enhance agility.

Our **methodology** ensures clear communication and iterative development, promoting client collaboration:

- **Planning** involves conducting workshops to gather requirements and align project goals with stakeholders, identifying challenges early.
- **Development** features an iterative design process, allowing constant client feedback to ensure alignment with expectations and create user-friendly solutions.
- **Deployment** includes rigorous testing and integration with existing systems, supported by go-live assistance for smooth transitions.
- **Resource allocation** is managed by a team providing expertise at every project stage, with project managers, subject experts, developers, and support staff ensuring efficiency and expertise.
- Training and knowledge transfer empower clients through customized training, comprehensive documentation, and post-implementation support, ensuring long-term success and self-sufficiency.

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## 3.6 Advanced Data Management and Integration for Municipalities

Data Surge provides scalable, flexible solutions for clients like TXShare members. Our platform-agnostic approach and advanced AI capabilities ensure seamless integration with any technical environment.

With a **platform-agnostic approach**, we deploy solutions across platforms such as **Azure** and **AWS**, integrating with on-premises systems. This allows us to leverage existing IT investments, minimize costs, support diverse ecosystems, ensure compatibility with TXShare requirements, and provide customized recommendations based on organizational needs. Our goal is to maximize functionality and efficiency, regardless of the platform.

Our AI expertise addresses complex challenges with **Natural Language Processing (NLP)** for conversational AI and seamless data interaction, **Predictive Analytics** to forecast trends and optimize resources, and **Data Integration** to facilitate real-time insights and reporting. Powered by **Databricks** and **EntityStream**, our solutions enhance automation, resource optimization, and citizen engagement.

Our solutions are designed for scalability and flexibility to meet TXShare member needs. **Scalability** is supported by cloud-native architectures that manage increased data volumes efficiently, while **Flexibility** is achieved through API-driven designs that enable easy customization and integration. We support both small municipalities and larger cities, effectively addressing their challenges.

## 3.7 Compliance and Security

Data Surge LLC, led by **Anu Jekal**, delivers secure, high-performance AI and data solutions that **adhere to the highest compliance standards**, ensuring **data integrity**, **privacy**, **and risk mitigation** for TXShare members.

Our solutions comply with key regulatory frameworks, including:

- ISO 27001 (Information Security Management) Ensuring a structured approach to data security, risk management, and continuous improvement in protecting sensitive information.
- ISO 9001 (Quality Management System) Implementing rigorous quality control processes to ensure consistent, high-quality AI and data solutions.
- GDPR Compliance Enforcing data privacy, access controls, and auditability to align with global data protection standards.
- HIPAA Compliance Ensuring secure handling of protected health information (PHI) through encryption, access controls, and data anonymization.
- Texas-Specific Compliance Adhering to the Texas Privacy Protection Act and state data residency requirements, ensuring secure and compliant operations.



## 3.7.1 Security & Risk Mitigation Features

Data Surge integrates **industry-leading security measures** to protect AI-driven applications and public sector data, including:

- **Data Anonymization** Ensuring privacy while enabling secure AI-driven data analysis.
- Role-Based Access Control (RBAC) Limiting data access to authorized personnel, reducing insider threats.
- Bias Mitigation Implementing AI fairness evaluations to prevent unintended biases in machine learning models.
- Continuous Security Audits & Monitoring Aligning with ISO 27001 standards, incorporating real-time threat detection and compliance assessments.

#### 3.7.2 Commitment to Ethical & Secure AI Solutions

Under the leadership of Anu Jekal, Data Surge has a proven track record in delivering secure, scalable, and compliant AI solutions for regulated industries and government entities. Our adherence to ISO 27001 and ISO 9001 ensures consistent security, quality, and continuous improvement—providing TXShare members with ethical, reliable, and future-ready AI technologies.

## 3.8 Data Governance and Cybersecurity Provisions

We provide secure, compliant solutions tailored for government clients by utilizing **Solution Accelerators**, **Databricks Lakehouse**, and deploying through **Azure** or **AWS**.

Ensuring data integrity and accuracy is achieved with validation mechanisms in **Databricks**, employing tools like **Azure Data Factory** or **AWS Glue** to automate error detection and correction.

Data privacy and compliance are maintained using data anonymization via **Databricks Delta Lake** for GDPR and CCPA compliance, with automated auditing through **Azure Compliance Manager** or **AWS Artifact**.

Data access is safeguarded with **RBAC** through **Azure AAD** or **AWS IAM**, and **MFA** is required for enhanced security.

We manage data retention policies with **Azure Policy** or **AWS Lifecycle Manager**, employing cryptographic erasure for secure data disposal.

Data auditing and monitoring ensure transparency via **Databricks Audit Logs**, **Azure Monitor**, and **AWS CloudWatch**, with regular audits conducted to maintain data governance integrity.

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#### 3.9 Value-Add

Data Surge provides tailored, innovative solutions using **Solution Accelerators** to quickly address specific needs with a focus on rapid deployment. We emphasize speed and precision, enabling solution deployment within weeks while ensuring scalability and cost efficiency. Our advanced AI capabilities, featuring tools such as **NLP** for chatbots and **Predictive Analytics** for trend forecasting, enhance decision-making processes. By leveraging emerging technologies, we deliver real-time insights through interactive dashboards, IoT integration, and smart automation. Our solutions enhance operational efficiency by streamlining workflows with role-based customization, proactive alerts, and data integration. To achieve cost savings, we utilize pre-built accelerators, optimize resources, and automate processes. We also provide ongoing support and role-specific training to maximize solution value and ensure operational independence. Data Surge's distinct approach combines **Solution Accelerators** and **AI technologies** with a customer-focused strategy, delivering rapid, adapted solutions that improve efficiency and service quality.

#### 4 Past Performance and References

Data Surge LLC has a solid track record of delivering AI-driven solutions across various domains. For **DHS-USCIS** under the **MDAS II** program, we used **AI/ML** models for deduplication and identity resolution, leveraging **Databricks** and **MLflow** for efficient model training on large datasets.

In the **commercial sector**, our work with Enviva Biomass involved predictive maintenance using AI for IoT, optimizing equipment reliability through **Databricks**-powered **MLOps** pipelines.

For the **SPEED** program with **DHS-USCIS**, we improved automation and data processing using **Databricks** and AI to enhance decision-making and reduce processing times. These projects highlight our expertise in integrating advanced AI technologies with strong data engineering practices to provide measurable value across industries.

#### 4.1 References

#### 4.1.1 MDAS II

**Agency/Business:** DHS – USCIS (Subcontractor under Maximus Federal Consulting LLC)

Period of Performance: 04/2022 – 06/2023

Project Role: Subcontractor

**Customer Reference:** 

Name: James Bench (Vice President)



**Phone:** 571-302-1896

Email: jamesybench@maximus.com

Relevance to AI:

Data Surge played a critical role in overhauling USCIS's person-centric entity resolution by introducing advanced AI/ML models for deduplication and identity resolution. By leveraging Databricks and MLflow, the solution streamlined machine learning operations, supported entity matching, and enhanced data accuracy. Proxy label generation enabled rapid training on over 4 million data rows, showcasing Data Surge's innovation in applying generative AI techniques to overcome data labeling challenges.

#### 4.1.2 Enviva Biomass

Agency/Business: Enviva Biomass (Commercial)

Period of Performance: 06/2021 - 09/2022

Project Role: Prime

Customer Reference:

Name: Andrew Dain

**Phone:** 410-241-1005

Email: adain@cpv.com

Relevance to AI:

Data Surge utilized AI-driven predictive maintenance solutions for IoT and SCADA systems. Leveraging Databricks' Lakehouse and Feature Store, ML models predicted equipment failures, improving operational decision-making. The MLOps pipelines provided advanced monitoring and model tracking, demonstrating AI's integration into industrial workflows.

#### **4.1.3 SPEED**

**Agency/Business:** DHS – USCIS (Subcontractor under Highlight Technologies)

Period of Performance: 09/2022 - Current

Project Role: Subcontractor

**Customer Reference:** 

Name: Sarah Nolbaum

**Phone:** 919-812-2958

Email: snolbaum@highlighttech.com

Relevance to AI:



Data Surge improved USCIS's automation workflows by integrating Databricks and AI-based real-time data processing systems. The team developed microservices for data ingestion, transformation, and decision-making, powered by AI. This project highlighted AI's role in enhancing automation accuracy, reducing processing times, and providing actionable insights through advanced analytics.

## 4.2 Project-Related Experience and Qualifications

Data Surge LLC excels in delivering AI-driven solutions for complex governmental and commercial needs. Our successful projects showcase our ability to design and deploy scalable, efficient, and secure AI and analytics platforms, making us an ideal partner for the North Texas AI contract.

## 4.2.1 Key Project Highlights

**MDAS II – AI for Identity Resolution:** We enhanced USCIS's identity resolution with advanced machine learning on Databricks Lakehouse, tackling data deduplication and real-time entity matching, and achieving high accuracy in data management.

Enviva Biomass – Predictive Maintenance with AI: We deployed AI-driven predictive maintenance for Enviva Biomass, using IoT data and Databricks, improving efficiency, predicting failures, and reducing costs, demonstrating AI's impact on industrial operations.

**SPEED** – **Automation and Decision Support Using AI:** For USCIS's case processing, we developed AI-based workflows, integrating real-time data ingestion and analytics to reduce processing times and increase accuracy.

#### 4.2.2 Relevance to North Texas AI Contract

Data Surge aligns with the North Texas AI contract through:

- Advanced AI Expertise: Designing innovative AI solutions using machine learning, NLP, and anomaly detection for diverse use cases.
- Scalable Data Platforms: Proficiency in Lakehouse architectures for robust data integration and analytics.
- Real-Time Analytics: Ensuring actionable insights through real-time processing tools.
- **Proven Track Record:** Successfully managing complex AI projects for federal and commercial clients, exceeding expectations.

# 4.3 Case Study: Transformative Data Insights with the Enviva Enterprise Lakehouse Solution

Data Surge partnered with Enviva to create a cutting-edge **Lakehouse** solution, merging the flexibility of **data lakes** with the precision of data warehouses on **Microsoft Azure**. This

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initiative transformed Enviva's data landscape into a scalable and secure platform for real-time insights and operational efficiency.

The solution utilized **Azure's** suite of services, including **Data Factory**, **Databricks**, and **Purview**, ensuring seamless integration and robust data governance. By integrating with **UKG**, Data Surge streamlined ERP data flows, showcasing the **Lakehouse's** capability to handle complex enterprise data.

An agile development approach delivered an MVP in five to six weeks, allowing early insights and agile enhancements. Collaboration with independent vendors ensured cohesive and actionable insights, while adherence to compliance protocols, role-based access, and **Azure Purview** enhanced data governance and security.

The project empowered Enviva with improved decision-making and scalability, highlighting Data Surge's expertise in designing advanced data solutions for complex enterprise challenges.

## 5 Pricing Proposal

## 5.1 Overview of Pricing Methodology

Data Surge's pricing methodology ensures competitive, government-compliant rates that provide cost-effective AI and data solutions for public sector agencies. Our pricing aligns with the **GSA Schedule Contract 47QTCA24D0043**, leveraging pre-negotiated rates to offer federal, state, and local agencies **discounted labor costs** for high-quality IT services.

Our pricing structure includes:

- Labor-Based Pricing: Hourly rates for professional services based on skill level and expertise.
- **Custom Development & Off-the-Shelf Solutions**: Transparent pricing for both bespoke AI/ML solutions and pre-built solution accelerators.
- **Subscription & Licensing Fees**: For software-based AI solutions, data platforms, and ongoing support.

Data Surge ensures that all pricing is transparent, scalable, and aligned with project deliverables, maximizing cost efficiency while delivering high-impact AI solutions.

#### 5.2 Detailed Cost Breakdown

## **5.2.1** Custom Development vs. Accelerated Solutions

Data Surge provides two primary service models:

 Custom Development: Tailored AI/ML models, data pipelines, and analytics solutions built to agency-specific requirements. Custom projects require discovery,



- development, and deployment phases, ensuring full alignment with organizational objectives.
- Off-the-Shelf Solutions: Pre-configured AI accelerators, including ResQAI, EntityStream, and LinkGraph, designed for rapid deployment. These solutions reduce time-to-value by leveraging proven, scalable architectures while allowing agency-specific customization.

## 5.2.2 Solution Type Cost Considerations

- **Custom Development:** Based on labor-hour estimates using GSA rates.
- **Off-the-Shelf Solutions:** One-time license fee + optional customization & support.

We work with agencies to balance custom solutions with pre-built accelerators, optimizing cost efficiency while ensuring high-performance AI deployment.

## 5.2.3 Licensing and Subscription Costs

For AI-driven platforms, some solutions may require licensing or maintenance-based pricing to ensure ongoing support, model updates, and software enhancements. Data Surge LLC offers flexible models designed to provide government agencies with scalable and cost-effective AI solutions.

## **Flexible Licensing Models**

- Enterprise Licensing: Covers Data Surge Solution Accelerators, with pricing based on transaction volumes and computing capacity to ensure cost efficiency and scalability.
- Annual Maintenance Fees: Includes software updates, security patches, and AI model training updates to maintain performance, security, and compliance.

#### Additional Enhancements & Customizations

• Agencies requiring feature enhancements, integrations, or modifications beyond standard maintenance can request custom development, which is quoted at the applicable hourly consulting rate.

#### **Cost Structure & Considerations**

Licensing costs vary based on:

- Transaction volumes processed by the AI solution.
- Computational capacity required for AI workloads and data processing.
- Storage requirements for structured and unstructured data analytics.



**Note:** This cost **does not** include **cloud infrastructure expenses** or the licensing cost of procuring third-party tools that need to be integrated with our solution. Data Surge ensures transparent pricing, allowing agencies to optimize their investments based on operational needs.

## **5.2.4** Hourly Rates

The following table outlines GSA-approved labor categories and hourly rates from Year 2 of our GSA Schedule Contract (47QTCA24D0043):

## **Professional Services Pricing\* (Hourly Rates)**

Labor Category	Description	Hourly Rate*
Analyst	Reviews, analyzes, and evaluates business systems and user needs. Develops solutions, reviews user requirements, processes, and procedures, and produces design documentation and reports.	\$152.26
Architect	Defines and designs technical solutions for complex systems. Performs system engineering research, design, integration, and technical support, ensuring interoperability and system performance.	\$190.33
Cloud Architect	Designs, builds, and deploys cloud solutions. Ensures integration with core services, security compliance, and high-level enterprise architecture for scalable and secure cloud environments.	\$190.33
Cloud Developer	Leads cloud-based application development, testing, and maintenance. Develops system designs, consults with end-users, and troubleshoots cloud applications to enhance performance and usability.	\$149.22
Cloud Engineer I	Supports cloud environments by configuring, troubleshooting, and maintaining IT infrastructure, including hardware, software, and	\$122.03

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<sup>\*</sup> These rates reflect discounted government pricing for IT professional services under **Data Surge LLC's GSA Schedule Contract 47QTCA24D0043**. These GSA-approved rates ensure predictable, government-compliant pricing while providing high-quality AI and data engineering services.



Labor Category	Description	Hourly Rate*
	networks. Provides end-user support and assists with server and database administration.	
Cloud Engineer II	Manages IT infrastructure in cloud environments, including installation, upgrades, and security configurations. Analyzes system performance and implements improvements for efficiency.	\$142.27
Cloud Engineer III	Oversees the design, implementation, and maintenance of cloud security tools and solutions. Leads troubleshooting, system optimization, and enterprise-wide cloud initiatives.	\$209.36
Cloud Technical Specialist	Provides expertise in IT standards, compliance, and cybersecurity frameworks. Conducts risk assessments, audits, and system evaluations, ensuring adherence to industry and government regulations.	\$304.52
Consultant I	Analyzes client needs and industry trends, providing insights into IT strategy, cloud computing, cybersecurity, software development, and governance. Develops feasibility studies and implementation roadmaps.	\$152.26
Consultant II	Leads IT strategy and implementation, aligning technology initiatives with business goals. Provides expertise in software development, cloud computing, and infrastructure optimization.	\$174.59
Engineer I	Supports and maintains IT infrastructure, including software, hardware, and network troubleshooting. Assists in system administration, setup, and technical issue resolution.	\$122.03
Engineer II	Oversees IT system operations, ensuring optimal performance and security. Collaborates with teams to implement upgrades, resolve issues, and develop IT solutions for business needs.	\$142.27
Engineer III	Leads IT infrastructure initiatives, managing cloud and on-premises environments. Designs and implements enterprise-level IT solutions, ensuring security, scalability, and operational efficiency.	\$209.36

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Labor Category	Description	Hourly Rate*
Program Manager	Manages large-scale projects and programs, ensuring alignment with business objectives. Directs teams, oversees budgets, and ensures deliverables meet client requirements.	\$209.36
Project Manager	Oversees project execution from initiation to completion. Develops project plans, schedules, budgets, and quality management processes while ensuring timely delivery.	\$190.33
Statistician	Applies mathematical and statistical methods to analyze and interpret complex data sets. Specializes in cloud computing analytics and strategic decision-making support.	\$174.59
Technical Specialist	Provides specialized IT expertise, focusing on compliance, risk management, and cybersecurity. Conducts audits, reviews technical documentation, and ensures regulatory adherence.	\$304.52

#### 5.2.5 Total Estimated Cost

The total cost will be determined based on the final **scope of work**, including:

- Labor hours required for AI/ML development, data engineering, and deployment.
- Licensing fees, if applicable, for AI-driven analytics and machine learning platforms.
- Customization & integration efforts for AI solutions within existing government systems.

Final pricing will be presented in a firm-fixed price (FFP) or time and materials (T&M) model, depending on agency requirements. Data Surge ensures cost predictability, budget alignment, and efficient resource allocation for all AI-driven projects.

# **5.2.6** Sample Engagement Data Surge Solution Accelerator and Professional Services

Data Surge provides a structured engagement model that combines our **Solution Accelerators** with **custom professional services** to deliver scalable, AI-powered solutions for government agencies. Below is an example of a **typical engagement** that includes initial setup, deployment, and ongoing maintenance.

## Phase 1: Initial Setup and Deployment (2-4 Weeks)

The initial implementation of a Data Surge Solution Accelerator requires a **team of senior-level engineers** to ensure proper configuration, integration, and optimization. This phase includes:



- **Deployment of Solution Accelerator components** (e.g., ResQAI, EntityStream, or LinkGraph)
- Cloud environment configuration and security implementation
- API and data pipeline integration with existing agency systems
- Automated infrastructure provisioning using Infrastructure-as-Code (IaC)
- Testing and validation to ensure seamless functionality

### **Estimated Team Composition:**

- 1 Sr. Data Engineer Data integration, transformation, and optimization
- 1 Sr. DevOps Engineer Infrastructure automation, CI/CD pipelines, and security compliance
- 1 Sr. API Developer API development, system connectivity, and data exchange

#### **Estimated Cost:**

- **Hourly Rate:** ~\$200/hr (average for senior-level engineers)
- Total Cost: \$50,000 \$100,000 (depending on scope and complexity)

*Note: This cost does not include cloud infrastructure or tool procurement expenses.* 

#### **Phase 2: Recurring Solution Accelerator Maintenance**

Following deployment, ongoing maintenance ensures system stability, security, and performance. Maintenance includes:

- Routine AI model updates and retraining (for solutions using machine learning)
- Security patching and software updates to maintain compliance
- System performance monitoring and optimization
- Support for API integrations and cloud infrastructure adjustments

## **Estimated Maintenance Support:**

- 1 Sr. Data Engineer and/or 1 Sr. DevOps Engineer
- 5-10 hours per week of support

#### **Estimated Cost:**

• \$4,000 – \$10,000 per month (based on complexity and support level required)

Note: This does not include cloud infrastructure costs or additional tool procurement expenses.

This engagement model ensures that agencies receive a **turnkey AI solution** with ongoing expert support to drive efficiency, compliance, and scalability.

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## 6 Appendices

### **6.1** Key Personnel Resumes

#### 6.1.1 Anu Jekal - CEO

Anu Jekal is a Technical Lead and Executive Manager with over 15 years in software development, big data processing, and AI solutions. As CEO of Data Surge LLC, she focuses on data engineering, real-time analytics, cloud solutions, and AI integration, emphasizing operational efficiency and scalability.

### **Core Expertise:**

AI & Machine Learning (Predictive modeling, NLP, MLOps), Big Data & Cloud (Databricks, AWS, Azure), Data Engineering (ETL, data governance), Software Development (Java, Scala, Python), Infrastructure & DevOps (Terraform, Ansible), Business Intelligence (Power BI, Tableau).

### **Professional Experience:**

- Data Surge LLC (2019–Present): Developed AI-driven data pipelines with Databricks and Kafka, automated cloud infrastructure, designed BI dashboards.
- **PeopleFinders (2018–2021):** Modernized data processing to real-time streaming, ensured SOC2, GDPR, CCPA compliance, scaled entity resolution technologies.
- **Resonate (2012–2018):** Led AI audience targeting, managed real-time data ingestion, designed automated pipelines.
- **WeDo Technologies (2007–2012):** Built ETL systems for telecom data, integrated high-performance data warehousing.

#### **Education:**

- M.S. Electrical Engineering, George Mason University (2006)
- B.S. Electrical Engineering, Kurukshetra University (2004)



#### 6.1.2 Charles Jekal

Solutions Architect with 10+ years in AI, machine learning, and big data. Specializes in cloud computing, enterprise data platforms, and MLOps. Proficient in Databricks, AWS, Azure, Kubernetes, Kafka, and Neo4j.

**Core Expertise:** AI & Machine Learning (Predictive analytics, NLP), Big Data & Cloud (Databricks, AWS, Azure, GCP), Data Engineering (Entity resolution, MLOps), Software Development (Java, Python, Spring Boot, Scala), DevOps (Terraform, Docker, Jenkins).

### **Professional Experience:**

- **Data Surge LLC (2019–Present):** Led Azure Lakehouse for a \$2B company, developed fraud detection models at USCIS, created MLOps pipelines, and oversaw AWS to GCP migrations.
- Ankura Consulting (2011–2019): Transitioned analytics from SQL to Spark, developed AI for claims processing, and built real-time alert systems.
- WeDo Technologies (2007–2011): Developed telecom analytics platforms for optimization and cost analysis.
- Certifications: Databricks Certified Associate Developer for Apache Spark 3.0

#### **Education:**

B.S. Computer Engineering, University of California, San Diego (2006)



#### 6.1.3 Princess Dickens

Python, SQL, SPARQL, Networkx, uWSGI, Django, Django REST, Nginx, AWS, Terraform, Docker, Kubernetes, Azure, GitHub workflows, ML/DL, LLMs, RAG, NLP, Databricks, Search and Retrieval, Question Answering, Recommendation Systems, Entity Resolution, Time Series Analysis, Ontologies, Graphs

## **Professional Experience:**

- Data Scientist, Data Surge (Jan. 2024 present): Developed RAG question-answering application, implemented validation metrics, and designed automated ETL quality tests.
- Computational Linguist, Lymba (Feb. 2021 Jun. 2023): Improved Entity Resolution, led high-risk projects, and enhanced chatbot performance.
- Data Scientist (Intern), Principal Financial Group (Aug. 2020 Dec. 2020): Conducted linguistic analysis and implemented validation schemes.

#### **Education:**

- M.A. Linguistics, Human Language Technology Certificate, University of Colorado Boulder, 2020, GPA: 3.97
- B.A. Spanish, Minors: German, Communication Studies, Rollins College, 2014, *summa cum laude*

## **Project Experience:**

- Car Recommender: Developed a content-based recommender using Django, Docker, AWS, and Kubernetes.
- **Time Series Resting BPM:** Analyzed fitness data using models like SARIMAX and XGBOOST.
- Entity Resolution of Person Records: Improved accuracy using PySpark and SQL on Databricks.
- Compliance Chatbot: Developed a chatbot for internal support, performing linguistic analysis and NLP configuration.
- **Sentiment Analysis of Solar Energy:** Used Twitter data and RoBERTa to analyze public opinion and published results.

#### **Publications:**

- Linguist vs. Machine: Rapid Development of Finite-State Morphological Grammars, <u>ACL</u> <u>Web</u>
- Public Sentiment Toward Solar Energy: Opinion Mining of Twitter Using a Transformer-Based Language Model, MDPI

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## 6.1.4 Nathan Rayens

Data Scientist specializing in AI, machine learning, data engineering, and computational imaging. Expertise in developing AI-driven insights, predictive modeling, and real-time analytics across supply chain, biomedical research, and enterprise automation. Proficient in Python, SQL, MATLAB, Databricks, PyTorch, and Docker.

## **Core Expertise**

Machine Learning & AI (classification, clustering, deep learning), Big Data & Cloud (Databricks, PyTorch), Data Engineering (entity resolution, ML pipelines), Statistical Modeling (regression, Bayesian inference), Computational Imaging (microscopy, signal processing).

### **Professional Experience:**

- **Data Scientist, Data Surge LLC (2023–Present):** Developed real-time microservice app for entity resolution, implemented AI/ML models, optimized parallelized ML training in Databricks.
- **PhD Research, Duke University:** Analyzed 400M+ mortality records, clustered genetic markers, developed random forest models, managed NIH-funded research
- Industry & Consulting Projects: Led efficiency improvements at Kaivac, Inc., managed stakeholder engagement at General Electric.

#### **Education:**

- PhD in Mechanical Engineering & Materials Science,
- M.S. in Computer Science (AI/ML), Duke University;
- B.S. in Mechanical & Manufacturing Engineering,
- B.M. in Piano Performance (Minor: Supply Chain Management), Miami University (*Summa Cum Laude*).

Nathan Rayens is a data-driven innovator with expertise in AI, machine learning, and computational modeling, delivering impactful solutions across research, enterprise, and industry domains.



## 6.1.5 Phillip Groves

Experienced Software Engineer with over 7 years of expertise in microservices architecture, cloud-native applications, and CI/CD pipelines. Proficient in Java, Spring Boot, Kubernetes, Docker, Angular, and SQL, with a strong focus on scalable, high-performance systems. ICAgile Certified Professional experienced in claims processing, business automation, and REST API.

#### **Core Skills**

- **Programming & Frameworks:** Java, Spring Boot, Angular, React, TypeScript, REST APIs
- Cloud & DevOps: AWS, Kubernetes, OpenShift, Docker, Jenkins, CI/CD
- Databases & Storage: PostgreSQL, Oracle, NoSQL, S3, Relational Databases
- Architecture & Automation: Microservices, Business Process Automation, SonarQube, Stripe Payment API
- Security & Compliance: USWDS, Bitwise Operations, 508 Compliance, RTC, GIT

### **Professional Experience**

Data Surge LLC (2021 – Present) | Sr. Software Engineer

- Led microservices development for USCIS (Department of Homeland Security), managing a catalog of 20+ Spring Boot services deployed on Kubernetes & OpenShift.
- Built highly scalable APIs interacting with PostgreSQL, Oracle DB, S3, and SQS, supporting data workflows across FBI and SSA.
- Implemented CI/CD pipelines with Jenkins, SonarQube, and Jacoco, ensuring 80%+ test coverage and automated Kubernetes deployments.

IBM (2019 – 2021) | Software Engineer

- Developed cloud-based microservices for multiple agencies, including GSA, National Archives, and DHS.
- Led a team in modernizing IBM's internal timecard system, migrating from legacy JSP to a Spring Boot & Angular cloud-based architecture.
- Developed CIC.GSA.gov for GSA's COMET Project, integrating a React frontend with a Drupal backend for real-time content updates.
- Built a stock exchange AI tool for USCIS MDAS Challenge, utilizing Jupyter, AWS Lambda, Angular, and Spring Boot microservices.

Market Disciples (2015 – 2016) | Web Developer

• Designed **marketing portals** for lead generation and appointment scheduling, implementing **A/B testing** to optimize conversion rates.

#### **Education & Certifications**

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- IT & Networking, Center for Career & Technology Education (2014)
- ICAgile Certified Professional



#### 6.1.6 Charlie Flowers

Senior Data Engineer & Data Scientist with over a decade of experience in big data architecture, data engineering, and AI/ML solutions. Expertise in Spark, Databricks, AWS, Scala, Python, and enterprise-scale data platforms. Proven track record in migrating legacy systems, optimizing ETL pipelines, and implementing AI-driven analytics.

#### **Core Skills**

Programming & Frameworks (Scala, Python, Java, Spark, SQL), Big Data & Cloud (AWS, Databricks, Redshift), ETL & Data Engineering, AI/ML & Automation (MLOps, Model Deployment), System Architecture & DevOps (Docker, REST API Development).

### **Professional Experience**

- Sr. Data Engineer/Data Scientist, Data Surge LLC (2022–Present): Architected Databricks-based pipelines, developed serverless identity deduplication, and designed MLOps pipelines.
- Lead Data Engineer, Varick Media Management (2014–2019): Migrated ETL scripts to Scala on AWS, optimized processing, led AWS EMR migration, and scaled data scientist workloads.
- **Software Engineer, Trax Software (2006–2012):** Designed a document management system, optimized business logic execution, and developed PDF utilities.

#### **Certifications**

- Databricks Certified Associate Developer Apache Spark 3.0
- Databricks Certified Data Engineer Associate.

#### Education

• B.S. in Computer Science, Florida Atlantic University, Boca Raton, FL (2004).



## 6.1.7 Elijah Franklin

Seasoned Principal Engineer with deep expertise in AI/ML, data engineering, and cloud computing. Skilled in machine learning, microservices, big data processing, and distributed computing. Strong background in Python, Scala, Java, Databricks, and Kubernetes. Extensive experience with cloud platforms (AWS, Azure, GCP) and MLOps frameworks for scalable AI deployment.

#### **Core Skills**

Programming & Frameworks (Python, Scala, Java, C++), Big Data & Cloud (AWS, Azure, GCP, Databricks), AI/ML & Deep Learning (TensorFlow, PyTorch), ETL & Data Pipelines (Airflow, Kafka), DevOps & Microservices (Docker, Kubernetes), Security & Compliance.

## **Professional Experience**

- Principal Engineer, Data Surge LLC (2023–Present): AI/ML SME for DHS, led personcentric identity resolution, built ML pipelines, designed CI/CD processes for AI/ML deployments.
- Lead Data Scientist & Engineer, Verusen (2020–Present): Developed AI-driven models for supply chain, designed microservices for ML inference, led MLOps initiatives.
- Senior AI Engineer, Equifax (2019–2020): Built entity resolution models, led AWS Redshift migration, created secure PII matching models.
- Senior Technology Consultant, Improving (2018–2019): Developed Azure-based chatbot using NLP, modernized systems into microservices, implemented API security.
- AI Researcher, Mississippi State University (2016–2018): Trained deep learning models for drone imaging, integrated LiDAR data for object detection.

#### Certifications

• Databricks Certified Associate Developer – Apache Spark 3.0.

#### **Education**

- M.S. Electrical & Computer Engineering, Mississippi State University
- B.S. Biochemistry, Kennesaw State University

## ATTACHMENT I: INSTRUCTIONS FOR PROPOSALS COMPLIANCE AND SUBMITTAL

#### Compliance with the Solicitation

Submissions must be in strict compliance with this solicitation. Failure to comply with all provisions of the solicitation may result in disqualification.

#### **Compliance with the NCTCOG Standard Terms and Conditions**

By signing its submission, Offeror acknowledges that it has read, understands and agrees to comply with the NCTCOG standard terms and conditions.

#### **Acknowledgment of Insurance Requirements**

By signing its submission, Offeror acknowledges that it has read and understands the insurance requirements for the submission. Offeror also understands that the evidence of required insurance must be submitted within ten (10) working days following notification of its offer being accepted; otherwise, NCTCOG may rescind its acceptance of the Offeror's proposals. The insurance requirements are outlined in Section 2.2 - General Terms and Conditions.

Name of Organization/Contractor(s):	
Data Surge LLC	
Signature of Authorized Representative:	
Jan 14, 2025	

### ATTACHMENT II: CERTIFICATIONS OF OFFEROR

I hereby certify that the information contained in this proposal and any attachments is true and correct and may be viewed as an accurate representation of proposed services to be provided by this organization. I certify that no employee, board member, or agent of the North Central Texas Council of Governments has assisted in the preparation of this proposal. I acknowledge that I have read and understand the requirements and provisions of the solicitation and that the organization will comply with the regulations and other applicable local, state, and federal regulations and directives in the implementation of this contract.
I also certify that I have read and understood all sections of this solicitation and will comply with all the terms and conditions as stated; and furthermore that I, Anu Jekal (typed or printed name) certify that I am the CEO (title) of the corporation, partnership, or sole proprietorship, or other eligible entity named as offeror and respondent herein and that I am legally authorized to sign this offer and to submit it to the North Central Texas Council of Governments, on behalf of said offeror by authority of its governing body.
Name of Organization/Contractor(s):
Data Surge LLC
Signature of Authorized Representative:

Date: Jan 14, 2025

# ATTACHMENT III: CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

This certification is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 93, Government-wide Debarment and Suspension, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668, 682), Department of Health and Human Services (45 CFR Part 76).

The undersigned certifies, to the best of his or her knowledge and belief, that both it and its principals:

- 1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency;
- 2. Have not within a three-year period preceding this contract been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction, violation of federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false Proposals, or receiving stolen property;
- 3. Are not presently indicated for or otherwise criminally or civilly charged by a government entity with commission of any of the offense enumerated in Paragraph (2) of this certification; and,
- 4. Have not within a three-year period preceding this contract had one or more public transactions terminated for cause or default.

Where the prospective recipient of federal assistance funds is unable to certify to any of the qualifications in this certification, such prospective recipient shall attach an explanation to this certification form.

Name of Organization/Contractor(s):	
Data Surge LLC	
Signature of Authorized Representative:	
Jan 14, 2025	

#### ATTACHMENT IV: RESTRICTIONS ON LOBBYING

Section 319 of Public Law 101-121 prohibits recipients of federal contracts, grants, and loans exceeding \$100,000 at any tier under a federal contract from using appropriated funds for lobbying the Executive or Legislative Branches of the federal government in connection with a specific contract, grant, or loan. Section 319 also requires each person who requests or receives a federal contract or grant in excess of \$100,000 to disclose lobbying.

No appropriated funds may be expended by the recipient of a federal contract, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any federal executive department or agency as well as any independent regulatory commission or government corporation, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered federal actions: the awarding of any federal contract, the making of any federal grant, the making of any federal loan the entering into of any cooperative agreement and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

As a recipient of a federal grant exceeding \$100,000, NCTCOG requires its subcontractors of that grant to file a certification, set forth in Appendix B.1, that neither the agency nor its employees have made, or will make, any payment prohibited by the preceding paragraph.

Subcontractors are also required to file with NCTCOG a disclosure form, set forth in Appendix B.2, if the subcontractor or its employees have made or have agreed to make any payment using nonappropriated funds (to <u>include</u> profits from any federal action), which would be prohibited if paid for with appropriated funds.

### LOBBYING CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge or belief, that:

- 1. No federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an officer or employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal loan, the entering into of any cooperative Contract, and the extension, continuation, renewal, amendment, or modification or any federal contract, grant, loan, or cooperative contract; and
- 2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, and or cooperative contract, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying", in accordance with the instructions.
- 3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers and that all sub-recipients shall certify accordingly.

Name of Organization/Contractor(s):	
Data Surge LLC	
Signature of Authorized Representative:	
Date: Jan 14, 2025	

## ATTACHMENT V: DRUG-FREE WORKPLACE CERTIFICATION

The <u>Data Surge LLC</u> (company name) will provide a Drug Free Work Place in compliance
with the Drug Free Work Place Act of 1988. The unlawful manufacture, distribution, dispensing, possession or use of a
controlled substance is prohibited on the premises of the
<u>Data Surge LLC</u> (company name) or any of its facilities. Any employee who violates this
prohibition will be subject to disciplinary action up to and including termination. All employees, as a condition of employment, will comply with this policy.
employment, will comply with this policy.
CERTIFICATION REGARDING DRUG-FREE WORKPLACE
This certification is required by the Federal Regulations Implementing Sections 5151-5160 of the Drug-Free Workplace Act, 41 U.S.C. 701, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668 and 682), Department of Health and Human Services (45 CFR Part 76).
The undersigned subcontractor certifies it will provide a drug-free workplace by:
Publishing a policy Proposal notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and specifying the consequences of any such action by an employee;
Establishing an ongoing drug-free awareness program to inform employees of the dangers of drug abuse in the workplace, the subcontractor's policy of maintaining a drug-free workplace, the availability of counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed on employees for drug violations in the workplace;
Providing each employee with a copy of the subcontractor's policy Proposal;
Notifying the employees in the subcontractor's policy Proposal that as a condition of employment under this subcontract, employees shall abide by the terms of the policy Proposal and notifying the subcontractor in writing within five days after any conviction for a violation by the employee of a criminal drug abuse statue in the workplace;
Notifying the Board within ten (10) days of the subcontractor's receipt of a notice of a conviction of any employee; and,
Taking appropriate personnel action against an employee convicted of violating a criminal drug statue or requires such employee to participate in a drug abuse assistance or rehabilitation program.
Name of Organization/Contractor(s):
Data Surge LLC
Signature of Authorized Representative:
Anni-
Date:Jan 14, 2025

# ATTACHMENT VI: DISCLOSURE OF CONFLICT OF INTEREST CERTIFICATION REGARDING DISCLOSURE OF CONFLICT OF INTEREST

The undersigned certifies that, to the best of his or her knowledge or belief, that:

"No employee of the contractor, no member of the contractor's governing board or body, and no person who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out of this contract shall participate in any decision relating to this contract which affects his/her personal pecuniary interest.

Executives and employees of contractor shall be particularly aware of the varying degrees of influence that can be exerted by personal friends and associates and, in administering the contract, shall exercise due diligence to avoid situations which give rise to an assertion that favorable treatment is being granted to friends and associates. When it is in the public interest for the contractor to conduct business with a friend or associate of an executive or employee of the contractor, an elected official in the area or a member of the North Central Texas Council of Governments, a permanent record of the transaction shall be retained.

Any executive or employee of the contractor, an elected official in the area or a member of the NCTCOG, shall not solicit or accept money or any other consideration from a third person, for the performance of an act reimbursed in whole or part by contractor or Department. Supplies, tools, materials, equipment or services purchased with contract funds shall be used solely for purposes allowed under this contract. No member of the NCTCOG shall cast a vote on the provision of services by that member (or any organization which that member represents) or vote on any matter which would provide a direct or indirect financial benefit to the member or any business or organization which the member directly represents".

No officer, employee or paid consultant of the contractor is a member of the NCTCOG.

No officer, manager or paid consultant of the contractor is married to a member of the NCTCOG.

No member of NCTCOG directly owns, controls or has interest in the contractor.

The contractor has disclosed any interest, fact, or circumstance that does or may present a potential conflict of interest.

No member of the NCTCOG receives compensation from the contractor for lobbying activities as defined in Chapter 305 of the Texas Government Code.

Should the contractor fail to abide by the foregoing covenants and affirmations regarding conflict of interest, the contractor shall not be entitled to the recovery of any costs or expenses incurred in relation to the contract and shall immediately refund to the North Central Texas Council of Governments any fees or expenses that may have been paid under this contract and shall further be liable for any other costs incurred or damages sustained by the NCTCOG as it relates to this contract.

Name of Organization/Contractor(s):
Data Surge LLC
Signature of Authorized Representative:
Date:

## CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.	OFFICE USE ONLY
This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).	Date Received
By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.	
A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.	
Name of vendor who has a business relationship with local governmental entity.	
Check this box if you are filing an update to a previously filed questionnaire. (The law recompleted questionnaire with the appropriate filing authority not later than the 7th business you became aware that the originally filed questionnaire was incomplete or inaccurate.)	s day after the date on which
Name of local government officer about whom the information is being disclosed.	
Name of Officer	
Describe each employment or other business relationship with the local government officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with Complete subparts A and B for each employment or business relationship described. Attack CIQ as necessary.  A. Is the local government officer or a family member of the officer receiving or lother than investment income, from the vendor?  Yes  No  B. Is the vendor receiving or likely to receive taxable income, other than investment of the local government officer or a family member of the officer AND the taxable local governmental entity?  Yes  No	t income, from or at the direction income is not received from the
Describe each employment or business relationship that the vendor named in Section 1 m other business entity with respect to which the local government officer serves as an ownership interest of one percent or more.	
Check this box if the vendor has given the local government officer or a family member as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.0	
7	
Signature of vendor doing business with the governmental entity	Date

Form provided by Texas Ethics Commission

www.ethics.state.tx.us

Revised 1/1/2021

### CONFLICT OF INTEREST QUESTIONNAIRE

### For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/ Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

<u>Local Government Code § 176.001(1-a):</u> "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

#### Local Government Code § 176.003(a)(2)(A) and (B):

- (a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:
  - (2) the vendor:
    - (A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that
      - (i) a contract between the local governmental entity and vendor has been executed;

or

- (ii) the local governmental entity is considering entering into a contract with the vendor;
- (B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:
  - (i) a contract between the local governmental entity and vendor has been executed; or
  - (ii) the local governmental entity is considering entering into a contract with the vendor.

#### Local Government Code § 176.006(a) and (a-1)

- (a) Avendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:
  - has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);
  - (2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or
  - (3) has a family relationship with a local government officer of that local governmental entity.
- (a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:
  - (1) the date that the vendor:
    - (A) begins discussions or negotiations to enter into a contract with the local governmental entity; or
    - (B) submits to the local governmental entity an application, response to a request for proposals
      or bids, correspondence, or another writing related to a potential contract with the local
      governmental entity; or
  - (2) the date the vendor becomes aware:
    - (A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);
    - (B) that the vendor has given one or more gifts described by Subsection (a); or
    - (C) of a family relationship with a local government officer.

### ATTACHMENT VII: CERTIFICATION OF FAIR BUSINESS PRACTICES

That the submitter has not been found guilty of unfair business practices in a judicial or state agency administrative proceeding during the preceding year. The submitter further affirms that no officer of the submitter has served as an officer of any company found guilty of unfair business practices in a judicial or state agency administrative during the preceding year.

Name of Organization/Contractor(s):	
Data Surge LLC	
Signature of Authorized Representative:	
Jan 14, 2025	

# ATTACHMENT VIII: CERTIFICATION OF GOOD STANDING TEXAS CORPORATE FRANCHISE TAX CERTIFICATION

Pursuant to Article 2.45, Texas Business Corporation Act, state agencies may not contract with for profit corporations that are delinquent in making state franchise tax payments. The following certification that the corporation entering into this offer is current in its franchise taxes must be signed by the individual authorized on Form 2031, Corporate Board of Directors Resolution, to sign the contract for the corporation.

The undersigned authorized representative of the corporation making the offer herein certified that the following indicated Proposal is true and correct and that the undersigned understands that making a false Proposal is a material breach of contract and is grounds for contract cancellation.

Indicate the certification that applies to your corporation:

marcare the continuation	in that applies to your	orporamom.	
✓	The Corporation is a tax payments to the		corporation and certifies that it is not delinquent in its franchise tas.
	The Corporation is a taxes to the State of		corporation or is otherwise not subject to payment of franchise
Type of Business (if no	ot corporation):		Sole Proprietor
			Partnership
		$\checkmark$	Other
	*		ct, the North Central Texas Council of Governments franchise tax payments.
Anu Jekal			
(Printed/Typed Name a	and Title of Authorized	d Representa	ative)
Signature			
<sub>Date:</sub> Jan 14, 2025			

# ATTACHMENT IX: HISTORICALLY UNDERUTILIZED BUSINESSES, MINORITY OR WOMEN-OWNED OR DISADVANTAGED BUSINESS ENTERPRISES

Historically Underutilized Businesses (HUBs), minority or women-owned or disadvantaged businesses enterprises (M/W/DBE) are encouraged to participate in the solicitation process.

NCTCOG recognizes the certifications of most agencies. HUB vendors <u>must</u> submit a copy of their certification for consideration during the evaluation of their proposal. Please attach the copy to this form. This applies only to the Offeror and not a subcontractor.

Texas vendors who are not currently certified are encouraged to contact either the Texas United Certification Program, State of Texas HUB Program, or the North Central Texas Regional Certification Agency, among others. Contact:

State of Texas HUB Program
Texas Comptroller of Public Accounts
Lyndon B. Johnson State Office Building
111 East 17th Street
Austin, Texas 78774
(512) 463-6958
<a href="http://www.window.state.tx.us/procurement/prog/hub/">http://www.window.state.tx.us/procurement/prog/hub/</a>

North Central Texas Regional Certification Agency 624 Six Flags Drive, Suite 100
Arlington, TX 76011
(817) 640-0606
http://www.nctrca.org/certification.html

Texas United Certification Program USDOT website at <a href="https://www.transportation.gov/DBE">https://www.transportation.gov/DBE</a>

You must include a copy of your certification document as part of this solicitation to receive points in the evaluation.

Vendor Name		
Authorized Signature		
Typed Name	Date	

# ATTACHMENT X: NCTCOG FEDERAL AND STATE OF TEXAS REQUIRED PROCUREMENT PROVISIONS

The following provisions are mandated by Federal and/or State of Texas law. Failure to certify to the following will result in disqualification of consideration for contract. Entities or agencies that are not able to comply with the following will be ineligible for consideration of contract award.

# PROHIBITED TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT CERTIFICATION

This Contract is subject to the Public Law 115-232, Section 889, and 2 Code of Federal Regulations (CFR) Part 200, including §200.216 and §200.471, for prohibition on certain telecommunications and video surveillance or equipment. Public Law 115-232, Section 889, identifies that restricted telecommunications and video surveillance equipment or services (e.g., phones, internet, video surveillance, cloud servers) include the following:

- A) Telecommunications equipment that is produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliates of such entities).
- B) Video surveillance and telecommunications equipment produced by Hytera Communications Corporations, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliates of such entities).
- C) Telecommunications or video surveillance services used by such entities or using such equipment.
- D) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, Director of the National Intelligence, or the Director of the Federal Bureau of Investigation reasonably believes to be an entity owned or controlled by the government of a covered foreign country. The entity identified below, through its authorized representative, hereby certifies that no funds under this Contract will be obligated or expended to procure or obtain telecommunication or video surveillance services or equipment or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as a critical technology as part of any system prohibited by 2 CFR §200.216 and §200.471, or applicable provisions in Public Law 115-232 Section 889.

The Contractor or Subrecipient hereby certiapplicable regulations in Public Law 115-232 Sec	Λ ,	and §200.471, or
SIGNATURE OF AUTHORIZED PERSON:		
NAME OF AUTHORIZED PERSON:	Anu Jekal	
NAME OF COMPANY:	Data Surge LLC	
DATE:	Jan 14, 2025	
	-OR-	
	s that it cannot comply with the requirements of 2 CFR §200.216 and egulations in Public Law 115-232 Section 889.	§200.471, or
SIGNATURE OF AUTHORIZED PERSON:		_
NAME OF AUTHORIZED PERSON:		_
NAME OF COMPANY:		_
DATE:		

#### DISCRIMINATION AGAINST FIREARMS ENTITIES OR FIREARMS TRADE ASSOCIATIONS

This contract is subject to the Texas Local Government Code chapter 2274, Subtitle F, Title 10, prohibiting contracts with companies who discriminate against firearm and ammunition industries.

TLGC chapter 2274, Subtitle F, Title 10, identifies that "discrimination against a firearm entity or firearm trade association" includes the following:

- A) means, with respect to the entity or association, to:
  - I. refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; and
  - II. refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or
  - III. terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association.
- B) An exception to this provision excludes the following:
  - I. contracts with a sole-source provider; or
  - II. the government entity does not receive bids from companies who can provide written verification.

The entity identified below, through its authorized representative, hereby certifies that they have no practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and that they will not discriminate during the term of the contract against a firearm entity or firearm trade association as prohibited by Chapter 2274, Subtitle F, Title 10 of the Texas Local Government Code.

The Contractor or Subrecipient hereby	certifies that it does comply with the requirements of Chapter 2274, Subtitle F, Title 10.
SIGNATURE OF AUTHORIZED PERSON:	Ami
NAME OF AUTHORIZED PERSON:	Anu Jekal
NAME OF COMPANY:	Data Surge LLC
DATE:	Jan 14, 2025
The Contractor or Subrecipient hereby o	-OR- certifies that it cannot comply with the requirements of Chapter 2274, Subtitle F, Title 10.
SIGNATURE OF AUTHORIZED PERSON:	
NAME OF AUTHORIZED PERSON:	
NAME OF COMPANY:	
DATE:	

#### **BOYCOTTING OF CERTAIN ENERGY COMPANIES**

This contract is subject to the Texas Local Government Code chapter 809, Subtitle A, Title 8, prohibiting contracts with companies who boycott certain energy companies.

TLGC chapter Code chapter 809, Subtitle A, Title 8, identifies that "boycott energy company" means, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company:

- I. engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuelbased energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; and
- II. does business with a company described by paragraph (I).

The entity identified below, through its authorized representative, hereby certifies that they do not boycott energy companies, and that they will not boycott energy companies during the term of the contract as prohibited by Chapter 809, Subtitle A, Title 8 of the Texas Local Government Code.

The Contractor or Subrecipient hereby certifies that it does comply with the requirements of Chapter 809, Subtitle A, Title 8.

SIGNATURE OF AUTHORIZED PERSON:	Ann	
NAME OF AUTHORIZED PERSON:	Anu Jekal	
NAME OF COMPANY:	Data Surge LLC	
DATE:	Jan 14, 2025	
	-OR-	
The Contractor or Subrecipient here Subtitle A, Title 8.	by certifies that it cannot comply with the requirements o	f Chapter 809
SIGNATURE OF AUTHORIZED PERSON:		
NAME OF AUTHORIZED PERSON:		_
NAME OF COMPANY:		_
DATE:		_

#### EXHIBIT 1: CATEGORIES OFFERED AND PRICING PROPOSAL

Place a checkmark next to each category you are offering in your proposal:

Service Category #1: Artificial Intelligence (AI) Solutions for Public Sect	tor Entitie
Service Category #2: Other Ancillary Goods or Services (List Below)	
Consulting Services	
Integration Services	

The Respondent shall furnish a comprehensive cost pricing model for this RFP, pursuant to the guidance provided in Section 5.13. Please delineate pricing based on **Service Category 1**, **Service Category 2**, or a combined pricing model for both categories. Label your pricing proposal as "Exhibit 1 – Pricing," and use as many pages as necessary to provide detailed information.

**Important Note**: This RFP is not tied to any specific project at this time. The purpose is to secure pricing for potential future use of AI solutions by public sector entities. Respondents are encouraged to provide pricing models that are as descriptive and flexible as possible to accommodate the varied needs of potential users.

In addition to the requested pricing, Respondents are encouraged to include a retainage rate based on the hourly rate of each staff member for any future projects that may arise but are not currently anticipated by this RFP.

Refer to Exhibit 1 – Pricing Proposal Worksheet Attachment.