TROY FULTON

Fort Worth, TX

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EDUCATION

Texas A&M University, College Station, TX   May 2020
Bachelor of Science in Computer Science, Summa Cum Laude   **GPA 4.0**
University Honors and Engineering Honors
Minors in Embedded Systems Integration and Mathematics

EXPERIENCE

Aspen Insights, Fort Worth, TX   June 2020 - Present
Software Engineer / Senior Big Data Engineer / Director of Data Engineering and Infrastructure
- · Lead a team of engineers through cross-functional engagement with clinical staff to streamline recruitment
- · Architect and deploy scalable, secure Big Data infrastructure using Kubernetes, Terraform, Spark, and Delta Lake
- · Build and maintain HIPAA-compliant data integrations with health systems (15+ external and a few internal)
- · Enable AI-driven solutions, including free text deidentification workflows using NER models, LiteLLM, and Langchain
- · Kickstart operational insights and cost analysis by building a data lake for many internal BI use cases
- · Contributed to projects across teams, practicing dockerization, DevOps and CI/CD, and Vue.js/Django development

Texas Instruments- Embedded Processing, Sugar Land, TX   May 2019 - July 2019
Software Engineering Intern, Compiler Team
- · Improved performance of C7000 DSP architecture compiler to improve compatibility with C6000 legacy code
- · Improved overall compiler performance via software pipelining vectorization as measured by system kernels in OpenCL

Lockheed Martin Enterprise Business Services, Grand Prairie, TX   May 2018 - August 2018
Applications Intern
- · Engineered solutions in SAP HANA Extended Services for corporate database operations
- · Applied knowledge of SQL & RDBMS to JS, as well as Python web scraping and beginner R forecasting

Texas A&M University Engineering, College Station, TX   August 2017 - May 2020
Peer Teacher (2017-2018) and Supervisory Peer Teacher (2018-2020)
- · Fostered engineering mindsets and mentored freshman engineers to think algorithmically 10-20 hours per week

RESEARCH

Undergraduate Research Scholars Program, Texas A&M University   August 2019 - May 2020
Undergraduate Researcher
- · Investigated techniques for parallelizing and optimizing Active-Routing in On-Chip Interconnection Networks
- · Produced a written undergraduate thesis for publication and presented a poster at a University-wide event
- · Published in 2021 in *IEEE Transactions on Computers*

SKILLS

Proficient	Data Engineering, Spark, Python, Delta Lake, Kubernetes (AKS), Terraform (IaC), Azure, SOLR, Redis, RabbitMQ, SQL, Trino
Moderately Proficient	LangChain, LiteLLM, Docker, Databricks, Django, Vue.js, C/C++, Microservices, Java, Linux
Moderate Knowledge	gRPC, R, C#/.NET, MATLAB, Haskell, x86/ARM/MIPS assembly, Unreal Engine

HONORS

2024 High Performer Award, Cedar Health Research / Aspen Insights   March 2025
Runner-up Smartcar API Integration Award, TAMUHack 2019 via Smartcar   January 2019
IAP Scholarship, Texas A&M University Industrial Affiliates Program   June 2018, 2019