SAM KULKA

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FULL STACK ENGINEER | UI AND DESIGN FOCUSED

SUMMARY AND PROFILE

Full Stack Engineer specializing in building data-driven platforms, AI-powered systems, and operational software from concept to production. Background in data engineering combined with product design and full-stack development enables translating complex real-world workflows into scalable technical solutions. Experienced in architecting transactional systems, ontology-driven data models, and modern web applications using React, FastAPI, and modern cloud tooling.

CORE COMPETENCIES

• SQL • Python • R • Java • C++ • GCP • AWS • Agentic Engineering • Kubernetes
• Data Orchestration • AI/ML Agile/Scrum • Informatica • Databricks • dbt • BigQuery • DuckDB
• PostgreSQL • ETL Automation • Data Modeling • Data Warehousing • Containerization • IaC
• Docker • Tableau • BI Tools

EXPERIENCE

Charles Schwab *Data Engineer*

Jan 2024 - May 2025

- Led end-to-end design and delivery of a production data product, translating ambiguous regulatory and business requirements into a scalable system used by non-technical stakeholders to make high-stakes decisions.
- Led an acquisition and data warehouse migration initiative that saved Charles Schwab $180M upon completion of the project.
- Engineered resilient data architectures supporting real-time analytics and predictive insights used by 200+ analysts across finance and operations.
- Implemented end-to-end data quality frameworks and validation logic, elevating accuracy and regulatory compliance across finance datasets while validating 5M records monthly with accuracy.

Charles Schwab *Data Engineer Intern*

Jun 2022 - Aug 2023

- Assisted in developing and tuning ETL pipelines using Informatica PowerCenter/IICS to streamline cross-source data integration.
- Enhanced ETL efficiency with SQL and Python scripts enabling faster query response times, cutting average query time by 40%.
- Automated 15+ workflows across 3 business units using data orchestration tools and GCP.
- Collaborated on sprint planning and backlog grooming to refine technical requirements and maintain agile velocity.

PROJECTS

Lex — AI Knowledge & Workflow Platform (Personal Project) - *2025*

- Built a full-stack AI platform that converts unstructured documents and APIs into structured data ontologies and queryable knowledge graphs using RAG, vector embeddings, and semantic indexing.
- Engineered a RAG pipeline combining OpenAI embeddings, a vector database, and PostgreSQL to support high-precision semantic search and multi-document reasoning.
- Implemented ontology-driven data models that normalize heterogeneous inputs into a unified, machine-readable schema.
- Developed a Next.js + FastAPI production system with authentication, job history, and audit trails for traceable, enterprise-grade AI workflows.

EDUCATION

Texas State University - *Fall 2023*
Bachelor of Business Administration - Finance

Austin Community College - *Summer 2021*
Associate of Science - Computer Science

CERTIFICATIONS

- Google Cloud Platform Associate Engineer
- Professional Scrum Developer™ I (PSD I)
- Dagster Essentials