Karston Kuciemba

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EDUCATION

The University of Texas at Austin B.S. in Economics Complete

Georgia Institute of Technology M.S. in Computer Science Expected: Aug 2027

EXPERIENCE

FullBloom May 2023 - Present

Software Engineer III

- Designed a modernized authentication system supporting credentials, SSO, SAML, and rostering, with unified MFA/session handling; created technical diagrams (sequence, flow, entity-relation) and Jira initiative to lead the implementation.
- Improved the scalability and reliability of the rostering data pipeline by implementing distributed processing and locking functionality, strengthening external-reference tracking, and resolved issues affecting imports and data synchronization.
- Led implementation of multi-organization user management across the platform, expanding administrator workflows for adding, removing, restoring, and managing users across entire districts; addressed complex enrollment and product-access edge cases and coordinated changes across accounts and rostering workflows to deliver a consistent end-to-end experience.

Software Engineer II

- Refactored 26 insecure legacy endpoints by introducing user-based middleware checks, separating handlers into distinct business logic and data access layers, and standardizing request validation, leading to secure and maintainable endpoints.
- Built a scalable AWS Step Functions ETL pipeline supporting Clever, SFTP, and ClassLink integrations to automate nightly data rostering syncs across hundreds of districts, processing millions of user and class records.
- Developed a feature-flagged, tab-based interface, calling endpoints to display rostering settings, including API health, SFTP credentials, and sync history; controlled using AWS Parameter Store for incremental production deployment.

Software Engineering Intern

- Developed 23 new pages and 88 components from Figma designs using React, TypeScript, Mantine, and createStyles.
- Enhanced the marketing site's functionality by maintaining current iteration in WordPress using PHP, jQuery, SCSS, resulting in improved lead generation and data collection of 30,000+ individuals.
- Led research and upgrade of repository from Mantine v5 to v6, identifying breaking changes and refactoring components.

Kyndryl – *Software Engineering Intern* May 2024 - Aug 2024

- Developed an API to retrieve IoT telemetry via real-time streaming protocol and bearer token authentication and created a front-end with login authentication redirecting to a digital twin for real-time warehouse analytics and device location.
- Implemented an internal full-stack application to quickly compute business-specific risk profiles and investment opportunities for sellers' proposals, saving 1,350 hours and $200,000 annually.
- Automated a billing process for a client with over 6,000 servers, saving internal employees 120+ hours per quarter.

University of Colorado – *Payroll/Processing Assistant* Aug 2021 - May 2022

- Efficiently collected and organized hundreds of documents (PDW, SSA-1945, I9) weekly using dynamic software solutions. This organization streamlined data retrieval and ensured compliance with state and university regulations.
- Performed daily data entry for a diverse range of clients while actively identifying multiple opportunities for software optimization. This led to increased data accuracy and uncovered efficiency improvements.

PERSONAL PROJECTS

HTTP Proxy – *Python, Socket, Threading*

- Built a multi-threaded HTTP/HTTPS proxy server to handle multiple client requests concurrently, supporting GET and CONNECT methods from any form of browser with proxy configurations set up.
- Implemented dynamic header modifications to improve compatibility by changing HTTP version to a non-persistent connection to log each request and managing connection headers before forwarding requests to the end client.
- Developed optional logging in JSON format to track and save request details, modified headers, and server responses.

Algorithmic Trading Platform – *Python, Pandas, React + TypeScript, Alpaca, Schwab API, SEC EDGAR, Parquet*

- Developed an end-to-end algorithmic trading platform integrating historical and real-time market data, technical indicators, and SEC Form 4 insider transactions to generate systematic equity and options trading signals.
- Built a reusable backtesting and risk-management framework to evaluate various strategies across historical market regimes, analyze performance metrics, optimize parameters, and simulate portfolio execution before deployment to live portfolio.
- Integrated live Charles Schwab brokerage account and trade execution with a real-time dashboard for monitoring positions, strategy parameters, trade signals, portfolio performance, and interactive backtesting results.

SKILLS

Programming Languages/Tech: **Python, TypeScript, JavaScript, C++, AWS, CSS, React, Flask, FastAPI, Postman, Git, SQL, OpenAPI**

Certifications: AWS Cloud Practitioner, Azure AI Fundamentals, Azure Data Fundamentals, Azure Fundamentals, GCP Digital Leader

Relevant Coursework: Web Development, Data Structures, Networking, Software Engineering, Scientific Computing, Software Design, Data Visualization, Differential & Multivariable Calculus, Algorithms, Statistics, Productivity Applications, Databases

Work Eligibility: **Eligible to work in the U.S. with no restrictions.**