

Karston Kuciembba

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EDUCATION

The University of Texas at Austin

B.S. in Economics

Overall GPA: 3.9

May 2025

Minor: Computer Science

EXPERIENCE

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.
- Created a Python script to analyze 70,000 server and middleware vulnerabilities with visualizations for root cause and forecast modeling to reduce vulnerabilities by 19% and increase patches by 13%.

CharacterStrong – Software Development Intern

May 2023 – Present

- Developed 13 new pages and 67 components based on 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.
- Collaborated with the team by merging 600+ commits via GitHub Pull Requests (PRs), participating in review process for over 300 PRs, and resolving cross-environment merge conflicts.

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.
- Proactively trained on customer service and compliance twice a week ensuring a collaboration between the entire team.
- 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.

Locus Construction – Operations Intern

May 2020 – Aug 2020

- Developed a Python script to automate file assortment and establish consistent naming conventions. This continues to be a part of Locus' workflow, significantly enhancing efficiency and organization.
- Managed and oversaw technical aspects (tasks, resources, and timelines) of development projects spanning across 4 states.
- Conducted in-depth market research for 7 industrial development projects, providing valuable insights to inform strategic decision-making regarding investment and procurement initiatives.

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.

Pharmaceutical Profit Analysis – Jupyter, Pandas, Dash, NumPy, Altair, Seaborn, Matplotlib

- Created interactive time-series and statistical visualizations for pharmaceutical stock data, COVID-19 deaths, and overdoses to compare and attribute confidence intervals to various performing tickers.
- Used Dash to build a device-responsive dashboard with multiple visualizations and statistical analysis for thesis presentation.
- Utilized yfinance API to retrieve stock and ETF information for data wrangling of over 42,000 rows.

Algorithm Visualizer – Python, Flask, React, TypeScript, Axios

- Featured options for various sorting algorithms, such as merge, bogo, quick, and insertion sort, to visualize and animate the sorting in real-time on the user's viewport for better understanding of algorithmic fundamentals.
- Employed asynchronous processing and Axios to send data for comparison between elements to the frontend, animating the sorting process with a timeout function, resulting in a visually appealing cascading effect.
- Utilized React's useEffect and useState to orchestrate initial graph as well as real-time sorting animations with constant calls to the backend API to simulate the two elements being compared at any given time.

SKILLS

Programming Languages/Technologies: **Python, Java, TypeScript, JavaScript, C++, HTML, CSS, React, Flask, FastAPI, Postman, Git**

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

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