Zijie (Jason) Zhang

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EDUCATION

Bachelor of Science | University of Illinois-Urbana Champaign | Champaign, IL May 2025

- Computer Science & Statistics
- 3.98 GPA
- Relevant coursework: Discrete Structures, Software Design, Data Structures, Computer Architecture, System Programming, Algorithms and Models for Computation, Database Systems, Artificial Intelligence, Statistical Modeling.

EXPERIENCE

Canvas Learning Management System Specialist Intern | University of Illinois at Urbana-Champaign May 2024 - Aug 2024

- Developed web and API components using TypeScript with React as the framework, deployed by Vite on a Linux server.
- Created a web page integrated into Canvas with functionalities including a GPA calculator and grade visualization and analysis tools, enhancing user interaction and academic tracking.
- Optimized and enhanced Canvas content and effectiveness, improving user engagement.

PROJECTS

U.S. Pollution Database Website Aug 2023 - Dec 2023

- Developed a website providing pollution levels, with customized searches based on pollutant types, location, and time, using React for the frontend.
- Implemented CRUD functionality and advanced SQL queries in MySQL, enhancing interactivity and data retrieval performance through Express.js.
- Connected backend and frontend via Google Cloud Platform ports, ensuring secure and efficient data flow.
- Utilized Git for version control, managing code updates and collaboration efficiently among team members.

Forest fire prediction Jun 2023 - Aug 2023

- Led a three-person team to build statistical models using R to predict potential fires in forests based on historical fire data.
- Implemented Multiple Linear Regression and Principal Components Regression models.
- Enhanced prediction accuracy through regression models, graphical displays, and numerical summaries, aiding in understanding the complex interactions between forest fires and other factors.

Open Flight Aug 2022 - Jan 2023

- Developed a C++ program that calculates and displays the shortest flight routes between any two airports worldwide using the OpenFlight dataset.
- Implemented BFS, Dijkstra's algorithm, and betweenness centrality to traverse the graph, find the shortest path, and compute travel times based on distance and number of stops, optimizing route efficiency.
- Created animations to visualize data parsing, graph traversal, and shortest path calculations, enhancing user interaction.
- Built comprehensive unit tests and integration tests to ensure the accuracy and reliability of the implementations

Android app development Aug 2021 - Dec 2021

- Developed an Android app using Android Studio and Java as a course project, allowing users to search for restaurants around campus.
- Focused on implementing backend functionalities, including sorting and connecting all the pages with different functions.
- Integrated restaurant details and search features, enhancing user experience by providing comprehensive information about each restaurant.

SKILLS

- **Programming Languages:** Python, Java, JavaScript, C, C++, R, SQL, HTML, assembly language (MIPS).
- **Frameworks:** Node.js, React.js, Express.js
- **Technical skills:** software development, database, data structures, and web development.