

Frank Sun

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EDUCATION

University of Wisconsin-Madison

08/2022– Expected 05/2026

Bachelor of Science in Computer Science & Data Science – GPA 3.97

- Dean's List 4/4 semesters

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, JavaScript, TypeScript HTML5/CSS, SQL, R, Kotlin

Frameworks: .NET, React, Node.js, Express.js, JavaFX, Emacs, Junit, Vim, Git, Linux, Regex, Flask, Selenium, Matplotlib

Database & Tools: MySQL, MongoDB, Redis, Git, Docker, AWS, Google Cloud

EXPERIENCE

Ad Server Development Intern

Zheda Media Technology, Liaoning, China | 06/2024 – 08/2024

- Optimized the company's ad delivery system, ensuring efficient and accurate distribution of advertisements to a user base of over 10,000 daily visitors.
- Implemented targeted ad selection algorithms using Python and SQL, integrating region-based criteria, demographic data, and frequency capping to enhance ad relevance, boosting user engagement by 20%.
- Managed and streamlined the MySQL ad inventory, enabling real-time availability and ad rotation; improved fill rates by 15% through automated categorization based on campaign and ad type.

PROJECT

Song Search System

- Developed a Full-Stack music playlist management application using Java, JavaFX, and Google Cloud.
- Improved data retrieval speeds by ~50% through Red-Black Tree implementation for efficient data retrieval.
- Created a user-friendly interface using JavaFX, facilitating easy navigation and user interaction, leading to a 20% increase in user engagement.
- Developed a robust file parsing system to process song metadata, enabling dynamic content management and enhancing the system's flexibility.
- Managed application deployment on Google Cloud, ensuring scalable access for a broad user base and implemented CI/CD pipelines for efficient and consistent updates.

Social Track

- Designed a Full-Stack application for analyzing social network paths, utilizing graph theory with Python and Flask to enhance network analysis capabilities and interactivity.
- Implemented Dijkstra's algorithm to efficiently determine the shortest paths between connections, reducing computation time by ~25%.
- Developed a custom DOT file parser to ingest and process graph data, facilitating dynamic updates to the graph structure.
- Built an interactive UI with real-time visualization, improving user interactivity and engagement by allowing users to load data and visualize connections effortlessly.
- Deployed the application on Google Cloud, ensuring high availability and fault tolerance. Employed CI/CD practices to streamline development cycles and updates, reaching an initial user group of 150 people.

Web Server

- Created a visually appealing personal profile page utilizing advanced HTML5 and CSS3 features, focused on responsive principles, ensuring optimal viewing on various devices.
- Implemented a lightweight Java web server capable of handling HTTP requests and dynamically responding to query parameters. Integrated RESTful API endpoints to enhance backend functionality.
- The web server was adopted by other group members for project integration, leading to improved web page interactions. It received the highest performance recognition in its class and was selected for demonstration to peers.