Weibing Wang

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Summary

Motivated Computer Science and Mathematics undergraduate with a strong academic record and hands-on experience in full-stack development, data analytics, and research. Adept in Java, Python, C/C++, and web technologies. Proven ability in project leadership, UI/UX design, and problem-solving. Committed to ethical software development and continuous learning.

Education

University of Wisconsin-Madison GPA: 3.6/4.0 *Madison, WI*

Bachelor of Science in Computer Science and Math Sep 2021 – Expected May 2025

Courses: Data Structure and Algorithms, Artificial Intelligence, Database Management Systems, Stochastic Processes, Machine Learning and Data Modeling

Experience

Back-end Developer - Capstone Project *Madison, WI*

Jan 2022 – May 2022

- Spearheaded Java back-end development, optimizing data processing for scalable applications.
- Implemented Test-Driven Development (TDD) to ensure robustness and collaboration efficiently using Git.
- Enhanced productivity through streamlined CI/CD processes with GitHub.

Database and Mobile Application Developer in UW-Madison *Madison, WI*

Sep 2023 – Nov 2023

- Developed full-stack mobile applications utilizing SQL, React Native, and Android SDK.
- Adopted Figma for UI/UX design and incorporated user feedback for improved functionality.
- Optimized data retrieval and system performance using C/C++ and clock algorithms.

Research

Research Scientist - Data Analytic in Software Ethics *Beijing, China*

Jul 2020 – Dec 2021

- Conducted statistical analysis using R on extensive developer response data to evaluate ethical practices.
- Engineered machine learning models, including logistic regression, for predictive analysis of user behaviors.
- Visualized disparities in ethical coding practices between Chinese and US developers.

Projects

Advanced Data Analysis, Visualization, and Deep Learning Spring 2022

- Engineered a facial analysis tool in Python, enhancing efficiency for processing large data-sets.
- Predicted ice cover duration using historical data with tf-idf and n-Gram models.
- Improved image recognition on the MiniPlaces data-set through CNN optimization and back-propagation.

Database System Development Minirel Application Fall 2023

- Engineered a single-user DBMS using C/C++, focusing on database internals in a UNIX environment.
- Implemented and Optimized SQL query execution functions, enhancing database interaction capabilities.
- Focused on building and managing buffer manager, heap files, and database utilities.

BadgerChat Voice Mobile Application Fall 2023

- Developed a mobile application using React Native, integrating JWT token security authentication.
- Implemented voice capabilities using DialogFlow Agent, enabling voice-activated functionalities for assistance.
- Utilized advanced techniques in UI/UX design and integrated API using Postman, ensuring a seamless user experience across web, mobile, and voice interfaces.

Skills

Languages: Java, Python, C/C++, Swift, Objective-C, R, SQL, HTML, CSS, JavaScript

Development: Git, Linux, Full-stack with React, React Native, Android Studio, SwiftUI, CI/CD

Honors and Achievements

- Accepted paper at the 8th ICSTR Singapore titled ”Software Developers Response to Unethical Coding Task Request.”.