JING WANG

Education

Duke University, Durham, NC

May 2024

Master of Engineering in Electrical and Computer Engineering

GPA: 3.9/4.0

University of Glasgow, Glasgow, United Kingdom

June 2022

Bachelor of Engineering in Electronics and Electrical Engineering

Honours of the First Class

University of Electronic Science and Technology of China, Chengdu, China

June 2022

Bachelor of Engineering in Electronics and Electrical Engineering

GPA: 3.74/4.0

Technical Skills

Languages: C++, Java, C, SQL, Python, HTML/CSS, JavaScript, Shell Scripting, Verilog, VHDL

Development Tools: Git, GitHub, GitLab, CMake, CI/CD, Jenkins, Docker, Bash, PowerShell, Maven, Gradle, Postman, MATLAB, Figma, Jira, Slack, Confluence, Microsoft Teams

Systems & Frameworks: Unix/Linux, JUnit, Spring MVC, Mybatis, Tomcat, Springboot, MySQL, PostgreSQL, Flask, AWS (EC2, Lambda, Speech Recognition), Azure (Web Services, Speech Recognition), RESTful API, Spark

Experience

Software Backend Developer Intern | Ctrip.com

May 2023 - August 2023

- Constructed a SpringMVC-based reporting system, acting as the **owner and primary code contributor**.
- Improved reporting time from 30 minutes to 5 minutes after deployment, enhancing performance for 1,000 employees.
- Managed requirements communication, code development, end-to-end testing, and benchmarking analysis.
- Implemented features such as allowing user input for time options and email addresses by processing HTTP requests for JSON data, and integrating Webhooks with Mybatis to send alerts via chatbots and update real-time data.
- Deployed the system using GitLab CI/CD while developing and maintaining tests with JUnit and Postman.

Test Intern | Chengdu Super Love Technology Co., Ltd

February 2022 - May 2022

- Crafted and executed unit tests, system tests, and compatibility tests. Identified bugs in front-end and back-end, and utilized Postman and vConsole for troubleshooting, serving as a **implementer** and **team worker** in the team.
- Achieved 100% on-time delivery, reported and resolved 150+ bugs, and supported the successful launch of 3 products.
- Coordinated timelines and tasks using Jira and collaborated with cross-functional teams in an Agile setting. Discussed with developers on critical defects and effectively communicated product prototype concerns with product managers.

Projects

Live AI Hackathon [Joint Duke - Harvard]: Panacea Mind | Python, React/Native, Flask, AWS

March 2024

- Led the development of 'Panacea Mind', an AI-driven mental wellness app that analyzes user speech, providing sentiment charts, reports, and mental illness suggestions, using React/Native for front-end and Python for back-end.
- Managed project timelines and earned Best AI and Best Design awards, serving as facilitator and coordinator.
- Leveraged AWS services for speech recognition and NLP to accurately analyze user speech tone and sentiment.
- Guaranteed 100% data security and compliance by implementing ethical AI practices, reducing potential issues.

Mini Amazon System Project | Full-Stack, Python, HTML/CSS, Flask, PostgreSQL

February 2024

- Designed an end-to-end online marketplace including user account management, product listings, and order placement.
- Directed the team as a **team leader** and **completer finisher**, facilitating meetings, assigning tasks, ensuring project alignment, and updating source code using GitLab, contributing to winning the Staff Choice Award Runner-Up.
- Implemented cart and order functionalities, managing real-time inventory checks and transaction processing.
- Structured the table schema and built a large database with realistic data, using pagination for extensive content.

Really Interesting Strategic Conquest | Java

April 2023

- Developed a multi-player combat game with movement, upgrade, and attack features, using S.O.L.I.D principles and design patterns such as Abstract Factory and Chain of Responsibility for diverse territories and game mechanics.
- Completed 3 evolutions, utilized communication skills to facilitate team collaboration, and acted as an **implementer**.
- Outlined project architecture and created UML diagrams, managing code via GitHub version control and peer reviews.

Implementation of malloc and free | Data Structure, C++

February 2023

- Created a metadata structure and used the **sbrk** function for efficient **heap** memory allocation, successfully implementing both basic and thread-safe versions of malloc and free for safe multi-threaded memory allocation.
- Attained a 75% fragmentation rate by splitting memory blocks from larger ones and merging adjacent available blocks.
- Implemented Best-Fit and First-Fit strategies to find suitable memory blocks, optimizing allocation efficiency.