Shaobo Qu

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La Jolla, CA

EDUCATION

University of California, San Diego (UCSD), La Jolla, USA   **Sep 2024 - Mar 2026** *(Projected)*
Master of Science in Computer Science
Huazhong University of Science and Technology(HUST), Wuhan, China   **Sep 2020 – Jul 2024**
Bachelor of Engineering in Computer Science   **Average GPA**: 3.93/4.0

PROFESSIONAL EXPERIENCE

Tesla, Shanghai, China   **Jul 2023 – Jan 2024**
Intern Software QA Engineer
- Developed an ASR (Automatic Speech Recognition) latency detector.
  - Improved batch data processing speed by 67.7% and measurement accuracy by 23.5%, enabling more reliable performance evaluations.
- Adapted the Jenkins Pipeline - Trip Planner Pipeline (TPP) for mainland China.
  - Altering the Pipeline to CN market requirements, incorporating junction view and other functionality absent in NA versions.
- Developed tools/Tidal Scripts for the analysis of Splunk logs/Pipeline results and auto-test on Tesla Vehicles.
  - Streamlined monitoring and evaluation processes for everyday build, accelerating pre-release regression testing by 20%.
- Developed new Jenkins Pipeline - VoiceRecNLU Pipeline.
  - Automatically evaluates the NLU module's accuracy of each newly built firmware, delivers feedback via email to relevant team members.
- Established the Tesla Node Farm, facilitating efficient and scalable testing environments.
  - Utilized Raspberry Pi to control and monitor vehicle computers, creating an automated testing tool and Pipeline node.
  - Set up eight parallel testing nodes for Tesla's Shanghai office, reducing regression test suite and pipeline run time by 63.3%.

ASML, Wuhan, China   **Jan 2023 – Jun 2023**
Intern Software Development Engineer in Test
- Created a Code Coverage Analysis Tool, enabling assessment of auto-test's coverage on each build.
  - Leading to a 37% increase in test coverage, significantly improving the accuracy and comprehensiveness of auto-test.
- Designed Auto Packager & Auto Cleaner to ensure the server's performance remains within an optimal range.
  - Automatically clears expired jobs, packages Low-P jobs when capacity is reached, and boosts server performance by 12%.
- Developed the Auto Verify & Auto Run Toolkit to execute jobs and verify Jira bug tickets daily at set times.
  - After each nightly build is completed, the tool automatically runs jobs from unresolved Jira tickets using the current build.
  - Verifies if bugs are fixed and notifies relevant person via email, saving at least 45 minutes per ticket in the verification process.
- Developed a series of toolkits for Bamboo and Qtest, enhancing the overall efficiency of project management.
  - Upon releasing a version, the tool automatically runs the test plans in Bamboo and Qtest, and adds issues to the next version's test plan.
  - Saving at least five hours of test plan organization and merging time with each version iteration.

SELECTED PROJECTS

Engineering construction project approval process management system, *HUST*   **Dec 2023 – May 2024**
- Completed the full-stack development of this graduation design project system independently.
- Utilized Spring Boot 3 framework and Java as the primary programming language to build the backend.
- Developed the frontend using Vue 3 framework and JavaScript.
- Managed data using MySQL for relational data storage, Redis for caching, and MyBatis for ORM.

HUSTwiki, *Huazhong University of Science and Technology*   **Jul 2022 – Nov 2022**
- Led the development of HUSTwiki, a campus forum for HUST, deployed on the WeChat mini-program platform.
- Managed the back-end service and project data, primarily using Java.

NUS Summer Workshop – Data Security, *National University of Singapore*   **Apr 2022 – Aug 2022**
- Conducted in-depth research on network attack and defense, as well as data security, collaborating with group members to write a thesis and completed the project.
- Formulated the "Verification of (C) Programs" tool with a user-friendly graphical interface (GUI) to address buffer overflow vulnerabilities in programs written in languages such as C or Java.

Tencent mobile device client development project, *Tencent*   **Jan 2022 – Aug 2022**
- Contributed to a collaborative mobile device client development initiative jointly sponsored by Tencent and HUST.
- Spearheaded the development of the 'NetNews' Android news browser client independently.

EXTRACURRICULAR ACTIVITIES

Student Union of Huazhong University of Science and Technology   **Oct 2021 – Jun 2022**
Minister of Social Practice Department
- Organized voluntary welfare activities like PC Doctor and Firefly Service Team, to help students in campus and the elderly in nursing homes.
- Coordinated the college's holiday social practice activities and led the Social Practice Department to win the Outstanding Organizational Unit awards for two consecutive years. Received the Outstanding Head of Social Practice Department award.