SONGYU WANG

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SUMMARY

Software Test Engineer (Quality Assurance Specialist) with **seven years of experience** developing and executing **end-to-end(E2E) test strategies** in highly regulated industries. Skilled in both **manual and automated testing**, with a strong ability to design and maintain **test frameworks and CI/CD**(continuous integration and continuous delivery or deployment) pipelines that integrate seamlessly into **SCRUM/Agile** environments. Adept at managing complex **testing processes, emphasizing traceability, defect management, and functional testing**. Consistently delivers reliable, high-quality software by driving rigorous testing and quality assurance practices.

EXPERIENCE

Jun 2020 – Sept 2025   **Benchling**   **San Francisco, CA**

Software Engineer, Quality

- Contributed to various company-wide quality initiatives for a cloud-based software company that develops software platforms powering breakthrough research on biotherapeutics, biofuels, and biomaterials
- Enhanced test infrastructure by developing and maintaining **multiple unit and E2E test frameworks** using **TypeScript (Cypress and Playwright), Python,** and **Bazel**
- Built and managed multiple **CI/CD pipelines** for a **300-person** engineering organization, utilizing a range of tools including **AWS, Terraform, Buildkite, Webpack, Datadog, and Docker**
- Supported TechOps (Technical Operations) by creating and analyzing **observability dashboards for system health and cost governance**, leading to resource allocation recommendations worth close to **a million dollars annually**
- Increased **E2E automated testing coverage by 30%** across multiple teams and components with Cypress, and collaborated on the development of over 300 new E2E test cases
- Improved testing processes for tech stacks including **React, Flask, GraphQL, SQLAlchemy, PostgreSQL, and OpenSearch** by creating SOP(standard operating procedure)s for test case management and designing a **Jira/Xray** integrated test traceability system
- Facilitated **onboarding and mentored** multiple new Quality Engineering (QE) team members

Jul 2018 – Apr 2020   **HeartFlow, Inc**   **Redwood City, CA**

Software Engineer in Test

- Led **quality assurance** and testing for platform and service components in a **SCRUM/Agile** environment at a medical technology company specializing in software for 3D coronary artery modeling
- Contributed to the development and verification of multiple projects, including three **web applications**, three **backend/API services**, and four workflow/product-related components

- Enhanced the **stability and efficiency** of legacy test frameworks, enabling continuous delivery of new features and improvements in newer frameworks
- Developed and maintained internal tools to streamline development and verification processes
- Developed and performed **manual and automated tests** using **Python and JavaScript** to validate and refine product requirements, ensuring accuracy during implementation
- Identified and managed hundreds of **defects and bugs**, driving resolutions to enhance product quality
- Conducted comprehensive **verification and validation** activities, including **test plan development, result analysis, and report writing**. Collaborated with cross-functional teams to perform **functional, regression, and system-level testing**, ensuring all documentation complied with corporate and federal standards
- Prepared detailed **Test/Risk Traceability Reports**, documenting test execution outcomes and linking each product requirement and risk to the appropriate tests

EDUCATION & CERTIFICATIONS

Rose-Hulman Institute of Technology (2014 - 2018)   **Terre Haute, IN**

Bachelor of Science, Computer Science and Software Engineering

ISTQB(International Software Testing Qualifications Board) | Certified Tester AI Testing (2024)
AWS | AWS Well-Architected Best Practices & Architecting on AWS with AWS Jam (2024)
Scrum.org | Professional Scrum Product Owner I (2019) & Professional Scrum Master I (2018)