

SONGYU WANG

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SUMMARY

Software test engineer (quality assurance specialist) with five years of experience in test strategy design, test automation, test plan, test execution(manual and automated), and test framework/tool development in the highly regulated industry in a SCRUM/Agile environment. Experienced in complex test management and tractability. Have a deep understanding of functional testing with behavior-driven development and test-driven development. Have strong technical acumen with extensive defect and bug identification, triage, reporting, and verification exposures. Oversaw verification and validation regularly for web applications, API services, etc.

EXPERIENCE

Jun 2020 - Present

Benchling

San Francisco, CA

Software Engineer, Quality

- Participating in multiple company-wide quality-related projects for a cloud company that develops software platforms powering breakthrough research on biotherapeutics, biofuels, and biomaterials
- Advancing the product(React+Flask+GraphQL+SQLAlchemy+PostgreSQL+OpenSearch) verification and validation by establishing SOP(standard operating procedure) for test case management that meets the regulations, designing/implementing a test traceability system with Jira/Xray integration, improving E2E (end-to-end) automated testing coverage for various teams/components by at least 30% using Cypress, and collaborating with various teams/components to create 300+ new E2E test cases
- Worked on various test infrastructure improvements including but not limited to E2E (end-to-end) test framework development/maintenance/integration using Typescript(Cypress+Playwright) and Python, API/mobile test framework consultation, and CI/CD (continuous integration/continuous delivery+deployment) pipeline development/maintenance/management with AWS, Terraform, Buildkite, Webpack, Datadog, Sumologic, Docker and more
- Onboarded new hires for the QE (Quality Engineering) team
- Participated in an early version of GxP (regulations and guidelines applicable to life sciences organizations) product delivery. Helped create the SOP and some of its technical implementation/automation. In addition, acted as a release engineer for more than half a year. Responsibilities include developing release/upgrade plans, finalizing code for release, generating release patches, and performing testing and production environment deployments

Jul 2018 - Apr 2020

HeartFlow, Inc

Redwood City, CA

Software Engineer in Test

- Oversaw quality and testing for platforms' and services' components in a SCRUM/Agile environment for a medical technology company that develops software used to create 3D models of coronary arteries to analyze blockages and the impact on blood flow
- Supported development and verification of three web applications, three backend/API services and four workflow/product-related components

- Maintained and refactored existing legacy test frameworks to improve stability and speed, continuously deliver new features for newer frameworks
- Implemented and maintained internal tools to support the development and verification effort
- Designed manual and automated tests using Python and JavaScript to refine and verify product requirements prior to launch/implementation
- Discovered and managed hundreds of internal and external defects and bugs
- Conducted verification/validation activities, including developing and executing test plans, reviewing results and writing reports, and collaborate with cross-functional teams to perform functional, regression, and system-level testing, and ensuring all test-related documentation meets the current corporate and federal regulations
- Prepared Test /Risk Traceability Reports to document test execution outcomes and traced each product requirement and risk contributor/mitigator to the test

Additional Experience

- Teaching Assistant (Mar 2017 - May 2018) - Rose-Hulman Institute of Technology
- Software Engineer in Test, Intern (May 2017 - Aug 2017) - HeartFlow, Inc
- Software Intern (Feb 2017 - May 2017) - Rose-Hulman Ventures

EDUCATION & CERTIFICATIONS

University of Ottawa (2021 - 2023)

Ottawa, ON

*Master of Computer Science, Voluntary withdrawal due to non-academic life events
(Completed 18/30 course units all with A+ grades)*

Rose-Hulman Institute of Technology (2014 - 2018)

Terre Haute, IN

Bachelor of Science, Computer Science and Software Engineering

GPA: 3.73/4.00

ISTQB(International Software Testing Qualifications Board) | Certified Tester Foundation Level (2024)

Scrum.org | Professional Scrum Product Owner I (2019) & Professional Scrum Master I (2018)

Triplebyte | Generalist Software Engineering (2019)

GitHub | GitHub Foundations (2024)

California State Department of Consumer Affairs | Engineer in Training (2020)