

# SONGYU WANG

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## SUMMARY

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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

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**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**

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### **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)**

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