

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

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| Jun 2020 - Oct 2025 | Benchling | San Francisco, CA |
| <i>Software Engineer, Quality</i> | | |
| <ul style="list-style-type: none">Contributed to various company-wide quality initiatives for a cloud-based software company that develops software platforms powering breakthrough research on biotherapeutics, biofuels, and biomaterialsEnhanced test infrastructure by developing and maintaining multiple unit and E2E test frameworks using TypeScript (Cypress and Playwright), Python, and BazelBuilt and managed multiple CI/CD pipelines for a 300-person engineering organization, utilizing a range of tools including AWS, Terraform, Buildkite, Webpack, Datadog, and DockerSupported 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 annuallyIncreased E2E automated testing coverage by 30% across multiple teams and components with Cypress, and collaborated on the development of over 300 new E2E test casesImproved 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 systemFacilitated onboarding and mentored multiple new Quality Engineering (QE) team members | | |

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| Jul 2018 - Apr 2020 | HeartFlow, Inc | Redwood City, CA |
| <i>Software Engineer in Test</i> | | |

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| <ul style="list-style-type: none">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 modelingContributed to the development and verification of multiple projects, including three web applications, three backend/API services, and four workflow/product-related components | | |
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- 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)