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## Work Experience

### Walmart GeC, Global Integrated Fulfillment

#### Software Engineer III (QA)

2018.06 - 2020.10 AR

Developed an in-house UI automation solution based on Node.js and Appium and used the framework for several GIF app modules.

The framework streamlines test creation process and maintenance effort through the use of DSLs e.g. configs and recorded test flows and the use of middlewares e.g. data & host providers, runners & reporters.

The data-driven solution allows full lifecycle control of orders and other resources via dependency injection and efficiently handles hundreds of test orders per minute. A visualized reporting tool shortens defect discovery time by presenting test logs, screen captures and performance charts side-by-side. The framework executes tests in parallel by isolating the processes and pooling orders, devices and UI operations for maximum performance.

Communicated with dev team to ensure app testability and system stability. Integrated the solution with SaaS providers and DevOps toolchain. Onboarded testers to automation and optimized the solution based on business needs. Finalized test plans & scopes with cross-functional teams. Provided guidance on test case writing and scripting. Supported continuous learning and collaboration by writing documentations, organizing demos, recommending best practices, etc.

### Cornell University, Language Resource Center

#### Developer

2017.06 - 2018.05 NY

Built and maintained WALAT (WAL Authoring Tool), a courseware creator for Web Audio Lab, an online learning platform.

Before, rich media courses required Web development skills and manual compilation of texts, scripts and media. Usually Center staff acted as authors due to high demand from instructors.

WALAT was written in Angular to streamline the courseware creation process with sets of forms, page templates, drag-and-drop command editor and an asset manager for embedding media files. A desktop version was made with Node, SQLite and Electron without costing extra server resources.

### WalmartLabs

#### Tools and Automation Intern

2016.06 - 2016.08 CA

Developed SRT, a full-stack Java project visualizing test results.

SRT retrieves data from TestRail API and Jenkins DB, aggregates and stores them using Hibernate, and exposes RESTful endpoints with which the dashboard can visualize automation & test stats and drill down using filters. Optimized chart loading time by caching SQL query results. Created an admin UI to manage configs and scheduled tasks.

Sam's is still using SRT for test reporting and SRT was adapted for GIF backend E2E testing.

## Education

### Cornell University

Master's - Information Science - GPA: 3.26

2017.08 - 2018.05 NY

**Project** Microsoft Azure · A browser-based cluster configurator for Azure Service Fabric on-prem users

Led a team of 3 and worked closely with the client to visualize cluster hierarchy with D3.js and Matter.js the physics engine.

Support for drag-drop, WYSIWYG, two-way conversion between designer and JSON editor, and JSON Schema validation to notify users of missing or incorrect fields.

### Cornell University

Bachelor's - Computer Science, Information Science - GPA: 3.12

2013.08 - 2017.05 NY

**Honors** Fall 2014 Dean's List

**MATLAB Consultant**

2016.08 - 2017.05

**Student Assembly Tech Committee Developer**

2015.10 - 2016.06

## Highlights

Five years of equivalent Web development experience and two years of mobile testing experience. Proficient in JavaScript (Node.js), ES6+ features and common frameworks (Express, RN).

Working knowledge of Java development. Full stack tooling experience with Grails and Spring frameworks.

Experience with Linux environment (Shell), CI/CD, microservices, SQL, NoSQL, RESTful, WebSocket, MQ technologies.

Familiar with algorithms and data structures, past experiences with DBMS, operating systems, data analysis (Python).

Able to utilize PaaS & SaaS solutions and forge partnership with service providers. Excellent English proficiency.

**Languages** Mandarin Chinese, English