Alex Qian

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Experience

Walmart Inc., Global Integrated Fulfillment

Quality Engineer III-Tech   Jun 2018 - Current

Developed a custom framework based on Node.js, Appium and Nightwatch to effectively test GIF app 2.0 rewritten in React Native.

Created connectors for HTTP services, databases and messaging queues, and HTTP adapters in Spring Boot / Swagger for services with no Javascript solution.

Implemented conditional parallelization of tests by orchestrating test orders, device allocation and API access through **O**rder **M**anager server.

Added ES6+ features and async test commands not in the original framework by TestArmada.

Reduced refactor and reuse effort by introducing **A**daptive **T**est **V**ehicle, reusable steps, **T**est **O**rder **DSL** and TestConf, a semantic configurator for test setups, store environments, test plans, etc. across all products & markets.

Developed extra reporters for TestArmada that connect to Jira and Slack, using ffmpeg to encode screenshots as videos and uploading extra performance logs and ADB logs for complete diagnostics.

Developed Ripple, an in-house alternative to TestObject / Saucelabs written in Express.js with server side Handlebars rendering and WebSocket for client-server-slave messaging that allowed self-enrolling or reserving a device for remote testing. Among the first to present a solution for TestArmada teams to use Plexus, a cloud UI testing inititive at Walmart.

Enforced ESLint rules for quality purpose and set up CICD pipelines to publish GIF test dependencies, verify test code PRs, trigger test executions and help manual testers with custom CI jobs.

Cornell University, Language Resource Center

Developer   Jun 2017 - May 2018

Created a course authoring tool for Web Audio Lab, a virtual classroom platform for language learning written in ColdFusion.

Before WALAT, making courseware required script commands e.g. `record 10s`, `next question`, coding / web development and manual effort to piece together content & multimedia. It was difficult to meet the demand from instructors and course staff.

WALAT provided a web app 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 uploading and embedding media resources.

Desktop version was made with Node, SQLite and Electron without provisioning extra server resources.

Microsoft Azure (graduate project)

Developer   Sep 2017 - Dec 2017

Created a browser-based cluster configurator for Azure Service Fabric on-prem users with Ember.js.

Lead a team of 3 and worked closely with the client during feasibility studies, requirements analysis, UX & wireframing, design & developing.

Visualized cluster hierarchy with D3.js and Matter.js the physics engine, and supported dragging-dropping and editing directly on the graph.

Provided two way conversion between visual editor and JSON editor. Created a validation feature for missing or incorrect fields.

Cornell University, Department of Computer Science

Consultant, CS 1112/32 (MATLAB)   Aug 2016 - May 2017

Held labs and tutoring sessions for students. Worked with graduate TA in classes. Graded projects and exams.

WalmartLabs Sunnyvale, Sam's Club Quality Engineering Team

Tools & Automation Intern   Jun 2016 - Aug 2016

Developed **S**am's **R**eporting Dashboard that provided insights of test results.

Built data pipelines to source data from TestRail API and Jenkins DB, store with Hibernate in MySQL DB and expose via HTTP RESTful service.

Created a UI dashboard that displayed automation and pass / fail summary, with ability to filter by suites & dates and drill down to individual tests.

Improved chart loading time by tens of seconds by caching SQL queries on an interval and further developed an admin dashboard to schedule different tasks.

The highly customizable SRT was used by Sam's QE and later GIF for reporting its own backend E2E and integration tests.

Student Assembly Tech Committee (Cornell University)

Developer   Oct 2015 - Jun 2016

Course planning was every student's nightmare before each semester. While Cornell was famous for "any person, any study" it was also subject to time, seating and workload.

Built a course scheduling web tool with Node, Swagger API & React for fast & informed decision.

Education

Cornell University

Aug 2017 - May 2018
Master of Professional Studies (MPS) - Information Science - GPA: 3.26

Courses   E-commerce · Cloud Computing · Ubiquitous Computing (Python, Java, Android) · Interactive Information Visualization (Javascript, D3) · Game Theory · Natural Language Processing (Python, NumPy, TensorFlow)

Cornell University

Aug 2013 - May 2017
BA - Computer Science, Information Science - GPA: 3.12

Courses   Web Design (PHP) · Data-driven Web Pages (HTML, Javascript, SVG, D3) · Database Systems (SQL, Java) · OO Programming (Java) · Software Engineering (Rails) · Discrete Structures · Functional Programming (OCaml) · Algorithm Analysis · Computer Vision (Python, Caffe) · Language and Information (Python, NumPy) · Machine Learning (Python) · Operating Systems (C) · C++ Programming

Skills

Languages   Java , Javascript , HTML/CSS , JSON , YAML , Python , SQL , bash , Ruby , C++ , PHP , MATLAB , C# , Swift , English , Shanghainese (Taihu Wu), Mandarin Chinese

Uncategorized   Node , Angular , React , Ember.js , Handlebars , jQuery , D3 , Android , iOS , Electron , Git , Linux , Grails , Spring Boot , Express.js , RESTful , API , WebSocket , Swagger , micro-services , Rails , Tomcat , Babel , gulp , Gradle, Maven, Jenkins , Docker , Heroku , Mocha , WebDriver , Appium , OneOps , Azure , AWS , machine learning , computer vision , data analytics , reading , writing , communication , collaboration