

钱可 alex

✈ 软件开发方向
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工作经历

Walmart, Supply Chain

沃尔玛电商供应链

软件开发工程师 III

2018.06 - 2020.10 阿肯色

为供应链部门独立研发基于 Node.js 和 Appium 的自动化集成测试框架，根据产品团队需求定制，在多个应用模块普及了自动化测试。

该自动化方案支持模拟环境下的多业务、多设备并行测试，通过多种方式降低用例维护成本、简化缺陷发现流程。

将数据访问、接口调用、UI 交互等剥离并模块化，通过依赖注入和配置类实现代码松散耦合。

该数据驱动下的框架能处理每分钟数百个测试订单，并能对订单、设备、测试状态进行管理。

与开发者沟通，提高应用的可测性与系统的可靠性，融入 DevOps 体系。向公司及第三方汲取经验，选取云端测试方案。

和团队会商测试计划、范围、环境。对测试用例和代码编写予以指导。通过技术文档、培训展演、标准化流程、最佳实践等方式推动团队效能改进。

Cornell University, Language Resource Center

康奈尔大学语言中心

开发者

2017.06 - 2018.05 纽约

为 Web Audio Lab（一个线上外语学习平台）编写和维护一个课件制作器（WALAT, WAL Authoring Tool）并创作课件。

在此之前，复杂的多媒体课件要求作者有网页开发的能力，并将课件内容，脚本和多媒体文件手动打包上传。通常中心雇员会充当作者，往往难以满足课程讲师们的需求。

WALAT 提供了多种风格的表单、页面模板，可拖拽式指令编辑器及用于嵌入多媒体资源的管理器，大大简化了用户的创作流程。该 Web 应用运行于本地而不依赖服务器，并且为了便于分发，使用 SQLite 和 Electron 构建了一个桌面版本。

WalmartLabs

沃尔玛实验室

工具与自动化实习生

2016.06 - 2016.08 加州

开发了 SRT，一个提供测试结果数据可视化图表的 Java 全栈项目。

SRT 从 TestRail API 和 Jenkins 数据库调取数据，通过 Hibernate 和 MySQL 将数据持久化，最终以 RESTful 服务的形式供仪表盘使用。Web 仪表盘可以实现对自动化和测试通过情况的概括性分析，并可通过测试集、时间等参数查找到具体的执行情况。

通过对 SQL 语句结果进行缓存，加快了图表的载入速度，并据此开发了后台界面来容纳不同的配置和计划任务。

首发用户山姆会员店仍然在使用 SRT 汇总测试结果，并且 SRT 经过容器化改造后被用于 GIF 后端的测试。

教育背景

Cornell University

康奈尔大学

硕士 - 信息科学 - GPA: 3.26

2017.08 - 2018.05 纽约

毕业设计 Microsoft Azure · 基于 Web 的面向本地部署 Azure Service Fabric 的用户的群集配置工具

带领三人团队和客户接洽，使用开源的 D3.js 和 Matter.js 物理引擎可视化呈现了群集的层次结构，支持拖拽和编辑视图元素，支持可视化设计器和 JSON 编辑器之间的互转。代码编辑器提供了基于 JSON Schema 的验证功能来提示用户缺失或错误的字段。

Cornell University

康奈尔大学

学士 - 计算机科学，信息科学 双专业 - GPA: 3.12

2013.08 - 2017.05 纽约

荣誉 Fall 2014 Dean's List（2014秋季院长奖）

MATLAB 课程顾问

2016.08 - 2017.05

学生会技术部开发者

2015.10 - 2016.06

技能其他

语言能力 汉语普通话，英语

专业技能

五年的 Web 项目开发经验和两年的移动端测试经验。精通 JavaScript (Node.js)，熟悉 ES6+ 特性和常用框架 (Express, RN)。

熟悉 Java 后端开发，使用 Grails 框架实施过全栈项目，对 Spring 框架有一定了解。

熟悉 Linux 环境 (Shell)，CI/CD，微服务的布设。经常涉及 SQL、NoSQL、RESTful、WebSocket、消息队列等技术。

了解常用的数据结构及算法，有 DBMS、操作系统、数据分析 (Python) 等过往经验。

能够在项目中运用 PaaS、SaaS 等解决方案，和服务提供商保持良好合作。英语交流表达能力出众。

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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