KWAN HO TAKO CHEUNG

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SUMMARY

A passionate and results-driven software engineer with a proven track record in coding, automations, optimizations, integrations, implementations, deployments, end-to-end testing, Agile methodologies, artificial intelligence (AI), IT security, data analytics and management, and team management. Implements software utilizing MQTT protocols and performs analysis and predictions on data collected using moving linear regression. Improves security of integration frameworks by authenticating and authorizing with central identity management. A forward-thinking and driven leader committed to driving organizational success through innovative solutions and collaboration.

EXPERIENCE

WALMART, Sunnyvale, California
Software Engineer III, April 2022 – August 2024

- Resolved a bug in the Kotlin-based E2E testing framework, ensuring compatibility and seamless operation across supported web browsers.
- Implemented web application integration for end-to-end testing automation framework with Java 11.
- Created internal REST API to check members' addon statuses; developed with Java 17 and Spring Boot.
- Reduced time spent on localization work by 100% by automating localization coding work for Walmart.com by developing shell script. Improved code quality by implementing wrapper component in React.
- Enhanced integration test suite performance by 30% and eliminated race conditions by refactoring test structure in Java.
- Reduced time spent on end-to-end testing by 50% by implementing Selenium IDE test suite.
- Developed microservice for ETL using SFTP, Spring Batch, Spring Boot, Java 17, and Kafka.
- Led team of two, overseeing entire project lifecycle from data discovery, design, implementation, to deployment.
- Implemented automated health check system on Walmart.com using Appium, resulting in 50% reduction in testing time and improved user experience.
- Automated end-to-end testing process using custom-built Java tool leveraging Appium with running the tests on Jenkin for each release, resulting in time savings of 100 hours quarterly.
- Designed REST API that allowed third-party applications to retrieve membership status. Implemented webhook system to provide third parties with real-time updates on membership status changes.
- Implemented a Postman collection for sanity testing, including post-test scripts to ensure the object's state is as expected.

CENTRALSQUARE, Wilmington, North Carolina
Software Engineer, January 2018 – April 2022

- Leveraged fast adaptability, learning new codebase, integrating third-party application to Inform RMS (Record Management System), and developing new feature for Inform RMS with AngularJS, C#, MS SQL, RabbitMQ, TopShelf, .NET, Code-First entity framework, and Tomcat.
- Improved security of application by designing and implementing event-driven software which sent request to middle-tier server with JWT authentication to fetch data back to client.
- Expanded product extensibility by implementing extension mechanism which could be configured by one single JSON object.
- Improved code quality by building CI, CD, and SCA pipeline and by introducing pull requests.
- Sped up spreadsheet generating process through VB by 80%.
- Reduced two hours of work for integration framework of Inform RMS each deployment by automating configuration in PowerShell. Saved 20 GB for each workstation by switching team foundation version control to Git.
- Enhanced microservice-based integration framework by utilizing RabbitMQ for messaging.
- Improved security of integration framework by authenticating and authorizing with central identity management which was built on top of IdentityServer3.

ELSTER HONEYWELL, Raleigh, North Carolina
Software Developer, May 2016- January 2018

- Integrated Fortify SCA scanning into the CI pipeline using Gradle in the build process, seamlessly invoking it through Groovy in the Jenkins pipeline. This implementation significantly reduced the risk of new bugs being introduced.

- Served as software developer with experience using Java, JavaScript (Ext JS), and SQL to develop new feature for Connexo NetSense; autonomous programmer committed to writing high-quality code.
- Eliminated possibility of OS injection and improved performance by using Ajax to upload file, parsing file into binary without saving file on server.
- Sped up building process by 20% after Postman became tool of integration testing.
- Reduced deployment time by 50% by modifying existing batch script.
- Saved company $100,000 by implementing single-step firmware upgrade.
- Analyzed source code on Jenkins and pushed result to SonarQube server set up on bare metal.

PROJECT EXPERIENCE

- Implemented movement AI, decision AI, and decision tree learning algorithm using processing, programming language based on Java and p5.js with VueJs.
- Converted Vue2 app into Vue3.
- My portfolio website is hosted on Azure, with deployments automated through GitHub Action.
- Developed software using the MQTT protocol to transmit data from a Raspberry Pi (client and gatekeeper) to a MacBook (broker and server), where I conducted data analysis and predictions using moving linear regression.
- Integrated live chat functionality into my personal website by connecting it with a Telegram Bot and Socket.IO.
- Implemented real-time chat on my personal website using Telegram and the long polling technique.
- Deployed a WebThings Gateway on a Raspberry Pi to centralize and manage all smart home devices (Zigbee, Bluetooth) from a single platform, while also integrating the Spotify Web API for seamless control.

EDUCATION

NORTH CAROLINA STATE UNIVERSITY, Raleigh, North Carolina
B.S., Computer Science, 2017

CERTIFICATION

Scrum Developer, 2023-2025
PMI Agile Certified Practitioner (PMI-ACP)®, 2024-2027

TECHNICAL SKILLS

Programming Languages: Java, JavaScript, C#, SQL, Groovy, Kotlin
Frameworks and Tools: React, Vue.js, Angular, Ext JS, Spring Boot, Spring Batch, Maven
CI / CD: Jenkins, Kubernetes, Docker, GitHub Actions
Data Streaming and Messaging: Kafka, RabbitMQ
Monitoring and Logging: Splunk, Prometheus, Grafana
Version Control: Git, Team Foundation Version Control (TFVC)
Testing: Selenium, Appium, Postman, Junit, Nunit, Jasmine
Cloud and Infrastructure: AWS (Cloud9, CloudFormation, CloudWatch, Lambda, S3, EC2), Azure , GCP
Other Technologies: JWT (JSON Web Tokens), WebThings Gateway, MQTT protocol, IdentityServer3, Gradle

LANGUAGES

Fluent in Cantonese and Mandarin.