

# Jason (Ren Jie) Hong

✉ jhong098@gmail.com 📄 in/jason-hong 🌐 jasonhong.me

## EXPERIENCE

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### Software Development Engineer II

Amazon Web Services

May 2021 – Present, Vancouver, Canada

- Built highly available, fault-tolerant backend systems for Amazon Connect Contact Lens using serverless AWS infrastructure, accurately automating millions of LLM-powered call center agent evaluations every month.
- Designed and implemented public APIs enabling third-party integration, ensuring secure and scalable access with comprehensive documentation for external developers.
- Orchestrated agent evaluation workflows with AWS Step Functions, intelligently sampling call center interactions based on configurable criteria while implementing durable retry mechanisms and real-time job state tracking for full workflow visibility.
- Developed reusable, WCAG-compliant React components in TypeScript using a themable AWS component library, with comprehensive Puppeteer test coverage to ensure accessibility and a consistent user experience.
- Automated dashboard creation by converting hundreds of manually created widgets into programmatic CDK implementations using generative AI, eliminating manual updates during region expansion and enabling scalable deployment.
- Programmatically provisioned test resources via public APIs, eliminating manual configuration overhead for feature launches and region expansion.

### Software Development Engineer Intern

Amazon Web Services

September 2020 – December 2020, Vancouver, Canada

- Enhanced the real-time call center transcript analysis pipeline by detecting and surfacing long-running asynchronous processes to customers, reducing resource bottlenecks, and improving processing transparency.
- Restructured monolithic analysis module into loosely-coupled components following SOLID principles, enhancing code maintainability.
- Wrote extensive Jest test suites spanning unit, integration, and snapshot tests, ensuring robust validation of business logic and UI functionality.

### Software Engineer

StackAdapt

January 2019 – April 2019, Toronto, Canada

- Enhanced the campaign management platform by implementing customization and productivity features in Ruby on Rails, React, and Redux, improving advertiser workflow efficiency.
- Developed dynamic bid frequency controls to enable real-time adjustments to ad bidding strategies and improve campaign performance.
- Increased system reliability by implementing comprehensive integration tests for user preset functionality, reducing production issues, and ensuring consistent behavior.

## PROJECTS

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### SignSense

[github.com/jhong098/SignSense](https://github.com/jhong098/SignSense) • September 2020 – April 2021

- Engineered a real-time gesture recognition pipeline integrating MediaPipe hand tracking with a quantized neural network, delivering sub-2-second inference latency.
- Trained a TensorFlow/Keras deep learning model on 1,000+ ASL samples, achieving 85% accuracy across 21 signs using LSTM architecture and data augmentation.

## EDUCATION

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### Bachelor of Applied Science in Computer Engineering

University of Waterloo • 2021

- President's Scholarship of Distinction

## SKILLS

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C++, Java, Ruby, Go, Python, TypeScript

React, Rails, Flask, AWS, Jest, Docker