JACKY CHONG

Software Engineer

Eligible Work Permit Holder

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Achievements

- **4+ years** of professional experience as a **software developer** specialized in **Full-Stack, DevOps and GUI Development**
- Developed and hosted http://ckyjacky.ca, a Portfolio Website and http://ckyjacky.ca:5001, an IKEA-Clone Website, utilizing industry-standard **full-stack frameworks** and **AWS infrastructure** for seamless operation and optimal user experience
- Maintained 40 WhatsApp Business APIs and Django Backend Server at PrimeCredit Limited, a leading financial institution, handling **120k monthly messages with 48% year growth**, ensuring smooth operations for **100+ monthly loan applications**
- Led end-to-end **Cloud Migration** for WhatsApp Document Upload Tool, adhering **Software Development Life Cycle** and conducting risk assessments. Transformed On-Premises **WhatsApp Business API** to Cloud-API and **Django** Server to **AWS Lambda**, **eliminating 2-hour monthly downtime**. Facilitated seamless scalability and integration with **2 new systems**
- Developed **10+ testing software and a Python-based Hardware Diagnostic GUI** at Cloud Light Technology Limited, consolidating **5 separate LabView GUIs and 2 vendor-provided software into a single GUI**, streamlining firmware verification and product evaluation process, **enhancing efficiency for 30+ test engineers and production workers**

Software Skills

Frontend Development:	React · Bootstrap · ThreeJS · HTML and CSS · JavaScript
Backend & Database:	Spring Boot · Django · MySQL · PostgreSQL · RESTful API
Cloud Computing:	AWS Amplify · AWS Lambda · AWS API Gateway · AWS DynamoDB
DevOps:	Git · JIRA · Jenkins · Docker · Linux OS
Programming Language:	Python · JavaScript · Java · SQL · Shell Scripting

Work Experience

Computing Solutions Advisor   **09/2023 – Present**
Best Buy Canada, Toronto, Canada

- Offering personalized guidance, upselling and cross-selling computing devices, accessories and Best Buy services

Software Engineer – FinTech Team   **06/2022 – 04/2023**
PrimeCredit Limited, Hong Kong

- Designed, developed and launched a **Hyperledger Fabric blockchain solution**, achieving a remarkable reduction in **loan application processing time from 1 week to just 15 minutes** across 3 leading financial institutions in Hong Kong
- Managed the development, deployment and maintenance of **40 WhatsApp Business APIs** and **Django-based Backend Server, handling 120k monthly messages with 48% growth year-over-year,** ensuring smooth operation of Document Upload Tool for loan applications
- Led **end-to-end cloud migration for WhatsApp Document Upload Tool from On-Premises WhatsApp Business API to Cloud-API & Django Server to AWS Lambda**, improving stability, reducing maintenance and upgrade complexity, and paving the way for seamless scalability and integration with 2 new systems
- Implemented **Strapi, a headless Content Management System (CMS)** for the Spring Boot Customer Data Platform to **reduce content management operations from 50 to 30 for over 200+ pieces of content**, enabling streamlined content management and distribution for programmatic advertising and digital marketing across platforms

Firmware Design Engineer   **07/2021 – 06/2022**
Cloud Light Technology Limited, Hong Kong

- Designed and developed **firmware and bootloaders in C** for the manufacturing of 400G & 800G optical transceivers
  - PMIC, design and develop drivers for I2C, SRAM, SDRAM, ADCs, Flash, GPIOs, ISR and peripheral ICs like TIA, CDRs
- Developed and maintained the proprietary **Firmware Upload Software PyQt5 GUI** ensuring the smooth firmware upgrade between the bootloader and switch/ computer **for 30+ test engineers and production workers, and 10+ clients**
- Collaborated with cross-functional teams, including 20+ test engineers, 8 PCB design engineers, and 2 chip vendors, to validate hardware and support technical leads in architecture discussions and design tradeoffs

Product Design Engineer ⬤ 06/2020 – 07/2021
Cloud Light Technology Limited, Hong Kong

- Developed a **Python-based Hardware Diagnostic GUI (PyQt5)** and **testing software**, empowering 30+ test engineers and production workers to conduct comprehensive firmware verification and product evaluation
- Conducted diverse **PCB Flying Probe** tests and failure and data analysis for design and yield improvement of 400G & 800G optical transceivers, **improving the Bit Error Rate from ^-6 to ^-12**, error-free, for PAM-4 and NRZ signal
- Collaborated with PCB and Firmware Design Engineers to optimize designs for production and ensure compatibility with chips & components

Software Projects

IKEA Clone ⬤ 12/2023 – Present
Full-Stack, Responsive, CI/CD
Skills: React.js · Bootstrap · Spring Boot · MySQL · Git · Jenkins · Docker
Live site: http://ckyjacky.ca:5001

An IKEA Clone website that faithfully replicates the renowned IKEA platform, providing visitors with a seamless experience to:
1. Login and Registration
2. Product Search
3. Wishlist Functionality: Users can add products to their wish list for future reference.
4. Dynamic Location Customization: Facilitates the modification of postal codes and selected stores.
5. Wishlist Summary Display: Presents a comprehensive summary of items saved in the wish list.

Portfolio Website ⬤ 08/2023 – 12/2023
AWS, Scroll Animation, Responsive, CI/CD
Skills: AWS Lambda · React.js · Bootstrap · Docker · Jenkins · Git · JavaScript · HTML & CSS
Live site on: Virtual Machine: http://ckyjacky.ca | AWS Amplify: https://master.d3ajwh6ur18vph.amplifyapp.com/

A portfolio website using React and Bootstrap, showcasing my skills and achievements. Implemented Docker and Jenkins on Digital Ocean for seamless integration and deployment. Hosted the website on AWS Amplify, optimizing for efficient visitor tracking with AWS Lambda. Live site is available on both virtual machine and Amazon Web Services (AWS).

sEMG Gesture Recognition Device ⬤ 08/2019 – 07/2020
Deep Learning, Graphical User Interface
Final Year Project (Grade: A+) · The Hong Kong University of Science and Technology
Skills: PCB Design · PyTorch Deep Learning (LSTM) · PyQt5 (GUI)
Demo video: https://youtu.be/BvVN7xhin_0

A 12-channel sEMG signal processing circuit on a printed circuit board (PCB), controlling the movement of a virtual character. Through the incorporation of a built-in Wi-Fi module, wireless transmission to a Python Graphical User Interface (GUI) is facilitated. The GUI deciphers biological signals into a 2-dimensional array, which serves as input for a deep learning model. Subsequently, the model's output directs the dynamic movements of a 3D character within the Unity platform.

Auto-following Car ⬤ 02/2019 – 06/2019
Deep Learning, Graphical User Interface
Course Project (Grade: A-) · The Hong Kong University of Science and Technology
Skills: PCB Design · Embedded Software · C · Microcontrollers
Demo video: https://youtu.be/iAUTrvcoG1g

This project focuses on developing an autonomous cart capable of both tracking its user and navigating obstacles. Utilizing ultrasonic sensors for user tracking and infrared sensors for obstacle detection, the cart adjusts its path dynamically. It represents a fusion of sensor technology and algorithmic decision-making for enhanced autonomy.

Education

The Hong Kong University of Science and Technology ⬤ 09/2016 – 07/2020
Bachelor of Engineering in Electronic Engineering
Final Year Project: Topic: sEMG Gesture Recognition Device
                           Grade: A+