David Lam

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CAREER NOTE: *Completed on-campus studies and currently taking distance education courses to complete a master's degree in computer science (Available for full-time, W-2 employment).*

Experience

FPT Telecom International   Spring 2020 – Spring 2023

Software Engineer

- Led the FPT E-Invoice project, implementing a Chrome extension for digital signatures and transitioned backend services to Go, leveraging Java 17, Spring Boot, and Reactive Spring to enhance performance and security. Attracted 100-200 new clients and secured a partnership with VINA Digital Signature Company. This system overhaul, including the integration of Spring Hazlecast Cache, significantly enhanced software reliability and security.
- Accelerated the Springboard project by adopting Go for backend services, along with OpenEDX and Python with Django. Expertly managed concurrent processes using Golang and Spring Hazlecast Cache, while also leveraging Jenkins and Kubernetes for advanced CI/CD orchestration, leading to recognition for project innovation and speed.
- Directed the FTI Surveillance Camera System, utilizing Go's robust streaming capabilities and WebRTC for real-time monitoring across 100 camera views. Incorporated AI for detecting human behaviors and suspicious activities with Golang for data processing and developed a reverse TCP remote service, integrating distributed Cockroach DB for data management, which significantly enhanced security and reduced project costs by 40
- Developed the iHome-IOT project further, constructing APIs with Python and Flask and refining the mobile UI with Java and Kotlin, ensuring continuous system performance and a dependable user interface. Improved user interaction and system functionality, integrating Reactive Spring principles.
- Updated the Fdrive app to work on macOS, iOS, and 32-bit systems. Added new features and languages using C++ and Python, and enhanced desktop experience. This project is built on NextCloud open-source platform.
- I rebuilt the NLP chatbot for Bankograph, restructuring the database and applying a new schema. I updated it with features from NLTK, which earned me rewards for the project.

Technologies Used: Java, Python, Golang, WebRTC, Jenkins, Kubernetes, Flask, Django, NLTK, C++, React, NodeJS ,AI and NLP techniques.

Idealogic - QS Solutions   Fall 2019 – Spring 2020

Cybersecurity Consultant

- Coordinated security scans with the APAC team, enhancing product resilience.
- Built Python scripts to automate Azure machine setups, accelerating team presentations to Microsoft Singapore by 30 percent faster than manual setups.
- Provided successful consulting services to a prestigious banking client in Bangladesh.

Technologies Used: Python, Azure, Shell Script.

Fromlabs PTE   Spring 2018 – Fall 2019

Software Engineer

- Delivered web-HID implementation under budget, surpassing the project timeline by 25 percents. Achieved this through strategic integration of Go for scripting and backend logic, which replaced Python. This move, supported by knowledge of Java 17 and Spring Boot, substantially elevated system functionality and efficiency.
- Played a pivotal role in the YCMA SCP software enhancement project with SAP, responsible for 30 percent of key tasks. Applied Go for scripting and leveraged its concurrency features for developing complex automation solutions, contributing to notable efficiency improvements and project success.
- Instructed Research and Development students in drone project development, utilizing Gazebo and ROS Kinetic. Implemented Goroslib for simulation and control logic, harmoniously blending it with Java and Spring Boot to enhance programming depth and performance in robotics applications.

Technologies Used: Python, Java, Spring Boot, React, NodeJS ,Gazebo, ROS Kinetic, Goroslib.

Upwork Inc   Spring 2016 – Winter 2017

Data Scraping Programmer

- For **P.C.L Trade**, transitioned data scraping projects to Go, leveraging for enhanced competitive insights, resulting in more efficient and maintainable codebases.
- At **OUTSPRIN**, developed automation solutions in Go, integrating to improve marketing strategies through advanced data analysis and web automation.
- With **HIPT Saigon LLC**, implemented web scraping and data analytics applications using Go, enhancing market data collection and processing efficiency.

Technologies Used: Python, Java, Golang, Vanila Javascript ,Flask, Playwright, Splunk, Selenium, Nginx ,Fiddler, Gin.

Education

Auckland University of Technology (AUT) Fall 2015 – Spring 2019
B.S. in Computer and Information Science, Spring 2019
Conducted RnD for the development of a distributed robot designed to detect water sources, identify and collect trash, and create a device for counting humans. Guided fellow students in their research and development (RnD) projects as part of my academic experience.
Graduate Coursework: Enterprise Engineering, Software Engineering, Web Development, Calculus, Database, Project Management, Rnd.

Maharishi International University (MIU) Fall 2022 – Summer 2025
M.S. in Computer Science, Summer 2025
Undergraduate Coursework: Modern **java** development, Advance Software Engineer, Software Architecture, Advance web development, Algorithm.

Technical Experience

Projects

- The movement turtle (Fall 2023): Building a Remote-Controlled Robot with ROS, Flask, and a Custom Web Interface.
  - One of my articles is Building a Remote-Controlled Robot with ROS, Flask, and a Custom Web Interface in Medium.
- TurtleGPT (Winter 2023): this project is developed using **python**-ROS and Flask, allowing us to control the bot by speech (upcoming).
- Key Finder (January 2024): this project helps the user find their lost object, This project is officially built this month.

Additional Experience and Awards

- RnD Instructor (2019): Hosting project meetings and verifying incoming student reports.

Languages And Technologies

- **Languages:** Python, Java, Golang, Kotlin.
- **Frameworks and Libraries:** Flask, Django, NLTK, Gorm, Gin.
- **Web Technologies:** HTML5, CSS3, JavaScript.
- **Tools and Platforms:** Jenkins, Kubernetes, Docker, Azure; for CI/CD.
- **Database Technologies:** MySQL, PostgreSQL for SQL databases, and MongoDB for NoSQL.
- **Streaming and Real-Time Communication:** WebRTC, HLS, VOD, WOWZA, DASH and DRM.
- **AI and Machine Learning:** Experienced in leveraging AI for behavior detection and automated grading, enhancing system intelligence and user interaction.

Current Certifications

- **PCEP – Certified Entry-Level python Programmer** (Jan 2024)
- **WDE – Certified Entry-Level Web Developer** (Jan 2024)
- **Oracle Certified Associate (OCA)-java SE Programmer** (waiting)
- **Code Foundation for ROS** (Jan 2024)