

# Minyi Zou

☎ +1 (412)-251-6325 • ✉ suusatoshigi@gmail.com • 🌐 linkedin.com/in/minyi-zou

## Education

### Carnegie Mellon University

Master of Science in Mobile and IoT Engineering

Mountain View, California

Aug. 2022 - Dec. 2023

### South China Agricultural University

Bachelor of Software Engineering

Guangzhou, Guangdong, China

Aug. 2012 - Jun. 2016

## Work Experience

### Veeam Software

Software Development Intern | Google Cloud, Kubernetes, Golang, E2E, CI/CD

May 2023 - August 2023

- Participated in the development of Veeam's core product Kasten K10, focusing on Kubernetes cluster backup and disaster recovery, adopted by industry-leading customers including Shell, Airbus, Fujitsu, Volkswagen, and Deloitte.
- Worked closely with CNCF Technical Advisory Groups to enhance Kopia, a prominent open-source tool with over **4k stars**; contributed to the creation of data snapshots and their seamless storage on remote or cloud-based platforms.
- Played an integral role in developing K10 features, including **CLI** tool for sourcing directories within the cluster and visualizing file hierarchies along with metadata to enable customers to select files. (<https://github.com/kopia/kopia>)
- Conducted unit and **end-to-end tests** while ensuring products robustness with seamless integration and deployment through a **CI/CD platform Codefresh**, patched faulty tests affecting **30%** team codebase, minimizing post-release issues.

### HSBC

Consultant Specialist | Swift, Objective-C, React, Node.js

July 2021 - July 2022

- **Led a team** to a fully **modularized and highly extensible** iOS application framework architecture, establish the standard of development cycle, conduct training sessions to the organization on topics including unit testing and modular development.
  - Supported over 20 Applications in over 20 countries, used by **100 millions of users**, achieved a **cost reduction of 60%**. Minimized the conflict of components in application development, greatly accelerated the speed of application development.
- Utilized **React Native** in **Node.js** for composing **asynchronous** and **event-based** programs (HSBC Anonymity Survey System), reduced chances of race condition. Fulfilled **full-stack** development, encryption algorithm and digital signature for authentication.

Software Engineer | Swift, Angular, Objective-C, CI/CD, Python

May 2016 - July 2021

- Tech Lead of the **HSBC China** and **HSBC Macau** Applications development, collaborated with British team in implementing **HSBC Hongkong**. Initiated & redesigned Apps, provided mentorship to junior engineers.
  - Maintained Apps by monitoring online status, **analyzed crash** information and collaborated with **8 teams** for testing and App delivery. **Reduced** the iOS native crash rate from **52.8%** to **1.1%** in a month.
  - Implemented UI page of HSBC Macau in **Swift** and HSBC China using **Swift** and **Objective-C**, built **Angular** framework plugins combining **JavaScript** and **Objective-C**, completed util classes with Swift, finalized UI libraries with reusable modules.
- Automated deployment of mobile testing apps with Jenkins in **Python** and **Shell** and worked with **GIT**, **CI** and Infrastructure-as-Code tools to set up **DevOps** platform **Jenkins**, accomplished a **deployment time reduction of 90%**.
  - Established automatic quality assessment tools to reduced risks of security for mobile App by injecting **RASP** and ensure developers' Pull Requests comply with quality standards such as **Danger**, **Swift Lint**, **SonarQube** and **Check Marx**.

## Projects

### Bosch, Activity Detection Using RF & Sensor Data Fusion

Sept. 2023 - Dec. 2023

- Collaborating with Bosch engineers to investigate the potential of sensors for post-pandemic human activity detection. Utilizing PyTorch to process and analyze data from IMU sensors, Bluetooth Low Energy radio RSSI.
- Developing a machine learning pipeline for real-time activity detection, integrating data acquisition scripts and ML models, and launching a user-friendly GUI for activity inference on iOS Platform.

### ByteDance, ByteDance Youth Training Camp Project

June 2023 - August 2023

- Participated part-time in ByteDance Youth Training Camp Project; developed a TikTok-like social media app in collaboration with ByteDance engineers, demonstrated expertise in designing and crafting comprehensive backend technical solutions for a real time video streaming app using Golang, MySQL, Redis and Kitex to build a large-scale Microservice-based distributed system.

### Carnegie Mellon University, Teaching Assistant of 17-514

January 2023 - May 2023

- Developed a board game with Decorator Pattern in React.js and a facial detection system with machine learning API in Java. Implemented a reliable and resilient distributed key-value storage solution, a customized consensus algorithm Raft and RPC.
- Provided mentorship for students to think with the mentality of testable code with accurate design pattern and full test coverage.

## Technical skills

- **Languages:** Golang, Objective-C, Swift, C/C++, Java, Python, HTML/CSS, TypeScript, SQL, x86\_64 ASSEMBLY
- **Others:** Linux/Unix, Git, Maven, Django, iOS SDK, CI/CD, AngularJS, Node.js, React, GDB, Kubernetes, Docker, gRPC, Redis, Cassandra, MongoDB, MySQL, SpringBoot, Neo4j, Hadoop, Spark, AWS, GCP, Go-Zero, Minio, Kitex