

Quanyong Bi

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<https://quanyongbi.github.io/>

EDUCATION

University of Southern California (USC)

Bachelor of Science in Computer Science and Business

Master of Science in Computer Science

GPA: 3.8/4.0

Los Angeles, CA

Aug 2020 - Dec 2024

Expected: Spring 2025 – Spring 2026

- **Relevant Coursework:** Computer System, Machine Learning, Data Structures, Algorithms, Computer Security, Software Development, Discrete Mathematics.

PROFESSIONAL EXPERIENCE

OinAuto

Irvine

Software Development Intern

May 2024 – Aug 2024

- Developed an internal internship management system, migrating from a static PHP setup to a dynamic **Django + React + Nginx** framework, significantly enhancing system performance, scalability, and user experience.
- Architected and implemented backend infrastructure for resume modification features, encompassing database design, API endpoints, and data transmission between frontend and backend.
- Led API testing efforts using **Postman**, thoroughly validating and documenting API functionalities, ensuring reliable data flow between frontend and backend. Created detailed test cases and provided comprehensive documentation to guide both frontend developers and other backend teams in integrating and utilizing the APIs efficiently.
- Contributed to a traffic safety monitoring project by researching **Single Shot Detection**, trained and developed of a customized model with 80% mean Average Precision (mAP) for fast and accurate object detection.

Hotland LLC

Los Angeles

Mobile Development Intern

Jan 2023 – May 2023

- Designed and developed an android application's interface using **Kotlin** and **Jetpack Compose**, improved app usability and increased daily active users by 25% within three months post-launch.
- Achieved a 99.9% error-free communication rate by conducting detailed unit tests and significantly improved app reliability by engineering robust **RESTful API** integrations for real-time synchronization with remote servers.
- Contributed to the development of an Android VPN management application on the **V2Ray** platform. streamlining user experiences in purchasing, configuring, and managing VPN services.

PROJECTS

Austin

Jul 2023 – Dec 2023

- Developed a Message Distribution platform using **Spring Boot**. Enable users to send and manage message batches through various platform including emails, SMS, slack and other social accounts.
- Increased data handling efficiency by at least 40% and ensured a 99.9% message delivery success rate by architecting a **Kafka**-based request handling system.
- Optimized request performance during peak hours and reduced costs in off-peak hours by developing dynamically configurable thread pools with **Apollo**, adapting to industrial workload variations, and enhancing system responsiveness.
- Minimized duplicate message deliveries by engineering advanced deduplication logic using **Redis**, which included designing content and frequency-based deduplication strategies for real-time processing.

SiKi

July 2024 – Present

- Developed a cross-platform inventory management and ai-powered recipe recommendation application using **Django** and **Flutter**.
- Designed and managed a **PostgreSQL** database, integrated REST Framework for API endpoints.
- Integrated **Docker** for containerization, **Nginx** for scalable web serving, and **AWS** for cloud deployment, emphasizing a scalable, maintainable, and secure architecture.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, Kotlin, C++, Swift, Javascript, Ruby.
- **Tools and Frameworks:** Spring Boot, Django, Flutter, C++, Flask, Redis, PyTorch, React, Node.js, Git, Jetpack Compose, MySQL, SQLite, PostgreSQL AWS, Android Studio, Docker, Html, CSS.