


Luke Rangel

ljrangel@usc.edu · (805) 702-5281 ·  lukerangel.dev

EDUCATION

University of Southern California
Bachelor of Science, Computer Science

December 2025
Los Angeles, CA

Relevant Courses: Data Structures and Object Oriented Design; Algorithms and Theory of Computing; Full-Stack Web Development; Principles of Software Development; Cross-Platform App Development; Software Engineering; Intro to Networking; Design and Construction of Large Software Systems; Intro to Computer Systems; Intro to AI

EXPERIENCE

Software Engineer Intern

May 2025 – August 2025

Visa Inc.

Foster City, CA

- Developed an AI-Integrator using LangGraph, Generative AI, and LLMs to automate API integration.
- Designed an agentic workflow incorporating a human-in-the-loop approach, ensuring high quality outputs and continuous improvement.
- Engineered precise API endpoint mapping and robust error-handling mechanisms to enhance integration reliability and accuracy.
- Scaled AI-Integrator to support diverse integration complexities, accommodating small and large-scale projects.

Software Engineer

July 2024 – May 2025

Herman Ostrow School of Dentistry of USC

Los Angeles, CA

- Maintain codebase using Gitea, conducting code reviews and ensuring consistent coding.
- Developed a kiosk check-in app using JavaScript and C#, integrating with Oracle for data retrieval, reducing patient wait times by up to **20%**.
- Established automated build and testing pipelines using JSLint and xUnit.
- Deployed and configured a self-hosted Gitea instance with an MSSQL backend, streamlining version control.

PROJECTS

NightGuard | *Android Studio, Java, Mapbox API, MongoDB, Node.js, Express, Firebase*

- Developed an Android app that tracks light pollution, enabling 50+ users to submit reports monthly.
- Integrated Mapbox API for interactive, location-based reporting and MongoDB for cloud data storage.
- Designed a RESTful API with Node.js to send and receive data between the app and MongoDB.

Latte | *React, Supabase, Tailwind, TypeScript, Tanstack, Vite*

- Collaborated with four developers and an external stakeholder to create an app for local businesses.
- Developed a responsive front end in React using Vite and Tailwind CSS for mobile friendly design.
- Utilized Supabase for backend and TanStack Query for data fetching, caching, and state management.

Tree Hole | *Android Studio, Java, Firebase*

- Collaborated with a team of three developers to create a social platform tailored towards USC students.
- Designed and implemented a real-time feed, facilitating 100+ posts/comments monthly.
- Leveraged Firebase database/storage for secure backend storage and data integrity.

DASH Proxy Server | *C++, Python, Sockets, Mininet*

- Designed a proxy that adapts video bit-rate using an EWMA-based algorithm.
- Processed and logged throughput for 50 concurrent client sessions for real-time video analysis.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL, JavaScript/TypeScript, C#

Frameworks: React, Node.js, Bootstrap, Flutter, .NET, Spring Boot

Developer Tools: Git, Docker, Linux, Firebase, Android Studio, Mininet, Supabase, AWS, MongoDB

Libraries: PyTorch, BeautifulSoup, SDL2, OpenGL, NumPy, LangGraph