

Colin Kwon

661-388-6429 | colinkwon914@gmail.com | www.linkedin.com/in/colin-kwon-22a190324 <https://github.com/Cobby914>

EDUCATION

University of California, Irvine

Irvine, CA

B.S Computer Science

June. 2027

EXPERIENCE

Software Engineer Intern

Aug. 2024-Dec. 2025

M.K Lending

Brea, CA

- Built a loan-lookup REST API/interface using TypeScript, and Node.js, reducing calculations by 4 hours per day.
- Made a rate-sheet ingestion pipeline with Python, pandas, and PostgreSQL, saving 3 hours of processing.
- Created a dashboard tracking employee's loans using React, PostgreSQL, and TypeScript for 5+ managers.

Research Assistant

Dec. 2025 - Present

University of California, Irvine

Irvine, CA

- Researching a multi-modal perception system fusing camera and radar data to improve object detection accuracy.
- Implementing SOTA deep learning architectures in PyTorch on sensor calibration and spatial feature alignment.
- Synthesizing academic literature to evaluate model architectures and design experimental robustness benchmarks.

Technical Lead

Dec. 2025-Present

TENA

Los Angeles, CA

- Spearheading full-stack development using React and Node.js, managing the technical roadmap for developers.
- Orchestrating Agile sprint cycles and task delegation, maintaining high development velocity and ensure delivery.
- Architected a PostgreSQL JSONB schema for dynamic user configs, meeting 100% of stakeholder requirements.

Software Engineer

Sep. 2024 - June 2025

Commit the Change

Irvine, CA

- Developed a full-stack volunteer tracking dashboard using React, Chakra UI, and Node.js used by 5+ managers.
- Built backend API and schemas using PostgreSQL, Axios, and TypeScript to build volunteer tracking tables.
- Optimized case manager table loading latency using React improving load times by 30 sec. compared to 40 sec.

PROJECTS

Genome Sequencing | *Python, Python AI libraries*

Oct. 2025 - Dec. 2025

- Constructed a data pipeline that conjoined Humsavar and dbnsfp5.3a using DuckDB, pandas, and Python increasing learning models f1 scores by 70%.
- Contributed the data exploration of data using seaborn, pandas, and Matplotlib increasing data readability.
- Developed a neural network learner using Python, Pytorch, pandas, and Sklearn with a F1 score of roughly 70.

Smart Step | *C, PlatformIO, Arduino, ESP32 Dev Kit, Amazon Web Service*

Oct. 2025 - Dec. 2025

- Created a smart white cane detecting change in elevation and incoming objects using a T.O.S sensor, ultrasonic sensors, Arduino with testing showing an 80% accuracy.
- Developed a buzzer system for blind and deaf people using inputs from sensors with a latency of 30 sec.
- Relayed data from ESP32 to a AWS cloud for a Bluetooth voice feature with an accuracy of 90%.

Tumor Classification based Scans | *Python, Pytorch, SKlearn, Pandas, Github*

Oct. 2025 - Dec. 2025

- Created a residual neural network using Sklearn, Pytorch, and Python with an f1 score of roughly 99.
- Implemented a grid search using pandas, Matplotlib, and Pytorch optimizing the residual neural network by 30%.
- Implemented a grad cam for residual neural network using Sklearn, pytorch, and PTL reaching correlation of .67.

Reel In | *JavaScript, TypeScript, CSS, React*

Oct. 2024 - May 2025

- Developed a full-stack platform for students to find projects using JavaScript, CSS, and React used by 50 students.
- Created REST API routes for project page using PostgreSQL, React, and JavaScript increasing use by 50%.
- Implemented navbar, modals, and cards using React, CSS, and JavaScript reused by 5+ developers on the team.

AWARDS

Campus wide Honors Collegium at UCI

Dean's Honor List

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, TypeScript, Assembly

Frameworks: React, Node.js, Next.js, Zustand, Chakra-UI, Radix-UI, Amazon Web Services

Developer Tools: Git, Visual Studio, Platform IO, PyCharm, Eclipse, Jupyter Notebook, Google Colab

Libraries: pandas, NumPy, Matplotlib, Sklearn, tensorflow, DuckDB, pyTorch