

Rachel Kao

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EDUCATION

University of California, Irvine

Bachelor of Science, Major in Computer Science

Irvine, CA

Expected - June 2026

Mt. San Antonio College

General Education

Walnut, CA

May 2022 – May 2024

EXPERIENCE

Software Engineer Intern

BAE Systems Inc.

June 2025 – Present

San Diego, CA

- Developed a Satellite List Service prototype in **Quarkus** to evaluate it against **Spring Boot**, replicating and extending core API functionality for future native executable deployment
- Delivered production-ready features using **Kafka**, **Elasticsearch**, **Quarkus**, **Docker**, **Gradle**, **Kubernetes**, and **Helm**, improving data retrieval, system scalability, and service reliability
- Designed and **deployed** secure **RESTful APIs** with CRUD operations, integrating **JSON Schemas**, **dependency injection**, and **authentication**; implemented cloud-native deployment with **Keycloak**, **OpenAPI/Swagger UI**, and automated **CI/CD pipelines** using **Gradle** and **GitLab**
- Co-led 15 interns in a 3-week fundraising initiative, raising **\$3,000** to purchase bicycles for donation to military families

Tech Fellow

Codepath

July 2024 – April 2025

Remote

- Leading a 10-week course for **200+** students, facilitating students in small groups of 4-6 through technical assignments covering **React.js**, **JavaScript**, using publicly available **APIs**, and **CRUD operations**
- Provided **1:1** support to students by resolving any technical questions or problems with their assignments
- Collaborating with fellow instructors to continuously improve the course curriculum and enhance the learning experience for students, resulting in a **15% improvement** in student project quality and positive feedback from **80%** of participants

Teacher

School Connection

Sep 2022 – Sep 2024

Walnut, CA

- Tutored **20+** students grades K-9 in math, English, science, and social studies, adapting to their individual learning styles
- Taught a 15-week math course for **10+** 5th-grade students, preparing their readiness for the 6th-grade math curriculum
- Supported classroom instruction by grading **100+** assignments and exams, while also preparing study guides and review materials for upcoming exams

PROJECTS

Care Voice | *Deepl, Groq (Whisper AI, Meta Llama 70B), Eleven Labs*

June 2024

- Built a full-stack medical translator mobile app to bridge communication gaps between doctors and patients
- Integrated **Whisper AI** and **Meta Llama 70B** via **Groq** for real-time language translation and natural language processing
- Utilized **Deepl** and **Eleven Labs** for accurate translation and high-quality speech synthesis

Good Eats | *Google Gemini, MySQL, Flask, Python, React, Material UI*

April 2024

- Developed a full-stack web app leveraging **Gemini AI** to generate curated meal options with detailed nutritional facts
- Implemented backend with **Flask** and **MySQL** for data handling and storage
- Designed responsive UI using **React** and **Material UI** for user-friendly meal selection experience

TECHNICAL SKILLS

Languages: C++, Java, JavaScript, Python, Swift, SQL (Postgres, MySQL), HTML, CSS

Frameworks & Libraries: React, Node.js, Flask, FastAPI, Material-UI, Bootstrap, Tailwind, NumPy, Quarkus

Databases & Tools: MongoDB, MySQL, Elasticsearch, Kafka, Kafdrop

Developer Tools & Platforms: Git, GitLab CI/CD, Docker, Helm, Kubernetes, Gradle, VS Code, IntelliJ, Eclipse, Jupyter Notebook, Xcode