

RYAN NI

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EDUCATION

University of California, San Diego

Expected Grad: **June 2026**

B.S. in **Computer Science, Cognitive Science (ML Specialization)**

Dean's List ('23-'24)

Relevant Coursework: Battery Energy Storage, Computer Systems & C Programming in Linux

3.8 GPA

PROFESSIONAL EXPERIENCE

Software Engineering Intern (Full Stack)

Jan 2024 – Sep 2024

Dream Voyage

Berkeley, CA

- Increased user traffic to **35,000+** monthly users by implementing a responsive user interface using React and TypeScript
- Implemented cloud solutions such as **AWS Lambda and RDS** to scale application infrastructure that maintained web application system's uptime at **90%** during production and utilized **Docker containers** for version testing
- Developed the Community Post & Dream Interpretation features on the mobile application- deployed on the App Store

Head STEM Instructor / Curriculum Developer

Jun 2022 – Apr 2024

CodeREV Kids / Brains & Motion Education

Mountain View / Santa Clara, CA

- Instructed **700+** students in STEM projects spanning online web application development, game design projects, and robotics utilizing **Arduino microcontrollers**, breadboards, and Arduino IDE to program student-built robots
- Restructured **10+** sections of CodeREV Kids and Brains & Motion's curriculums, enhancing student comprehension
- Fostered partnerships with **20+** local businesses, encouraged real-world application/display of **30+** student projects

PROJECTS / LEADERSHIP / OTHER EXPERIENCE

Power Tag / Kotlin, C++, Google Maps API, Blynk API, GSM, Solar Cells, Arduino, OnShape

Oct 2024 – Present

Software Lead + Hardware Lead

IEEE FA24 QP

- Developed solar-powered portable battery with integrated GPS tracking accessible through mobile app made with **Kotlin**
- Integrated **Blynk API** into mobile app to send and receive packets over **GSM communication** from a **SIM800L** module programmed in **C++** with **Arduino UNO** enabling global internet connection without WiFi connection
- Integrated mobile app location feature with embedded map via **Google Maps API** and **Blynk HTTPS API**
- Developed internal electrical architecture integrating **solar power compatibility** and designed 3D prototype in OnShape
- Managed Software and Hardware teams and met **100%** of major deadlines via Agile and Scrum methodologies

TRACE (Technology Repairs and Computer Education)

Sep 2023 – Jun 2024

President / Founder

UC Santa Cruz

- Founded and led **50+ active members**— providing hands-on experience and education on technology repairment skills— such as replacing phone OLED screens, laptop batteries, and soldering
- Secured **\$1,500** in funding towards materials, tools, and education module expansion for more impactful workshops
- Partnered with industry professionals to bring networking opportunities to active members such as Apple

Slug Mommy / SvelteKit, TypeScript, SupaBase, Tailwind CSS, OpenAI API

Jan 2024 – Jan 2024

Awarded; #1 Best UI / UX

CruzHacks 2024

- Integrated **OpenAI API** for personalized virtual assistant to help optimize daily tasks and improve mental well-being
- Designed and developed full-stack web application optimizing daily schedules with task tracking and push notifications

Cal Craft / React.js, MUI, Python, Firebase, Pandas, YOLOv8, Roboflow, Beautiful Soup

Nov 2023 – Nov 2023

Awarded; #1 Best Empowerment for Minorities

GraceHacks x ACMHacks 2023

- Trained a machine learning algorithm (**AP65 IoU**) with **1000+** images scraped from Google and UCSC dining hall menu with **Python Beautiful Soup** to calculate personal insulin intakes via image recognition classification algorithm (**YOLOv8**)
- Personalized dietary intake-based insulin tracking systems via account set up and image-uploading feature

AWARDS / CERTIFICATIONS / SCHOLARSHIPS

#1 Best UI/UX - CruzHacks 2024

Tau Beta Pi Scholarship - Engineering Honor Scholarship

#1 Best Empowerment - GraceHacks x ACMHacks 2023

L1 HPR NAR Certification - Rocketry

#1 Best Beginner Hack - Wilhacks 2.0

Inspirit AI Scholar - AI Research Project

TECHNICAL SKILLS

Languages: TypeScript/JavaScript, C/C++, Java, Python, SQL, Kotlin, Dart

Libraries/Frameworks: React, Next.js, SvelteKit, Material UI, Pandas, PyTorch, Flutter, Zod

Development Tools: Docker, Vercel, AWS, Supabase, Firebase, Google Cloud CLI, Clerk, Roboflow, Git