

# ALEX NAVA

(707)-849-9487 | <https://www.linkedin.com/in/alex-nava-861373234/> | [alexnava@berkeley.edu](mailto:alexnava@berkeley.edu)

## EDUCATION

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- **University of California, Berkeley** **Anticipated Graduation: 2028**
  - B.S Electrical Engineering and Computer Science and B.A Data Science
  - **Currently:** Structure and Interpretation of Computer Programs **Planned:** Data Structures
- **Santa Rosa Junior College, Dual Enrollment** **Aug 2021 - May 2024**
  - **Certificate:** Web and Mobile Development

## SKILLS/QUALIFICATIONS

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- **Programming Languages** | Python, Arduino, Javascript, SQL
- **Libraries/Frameworks** | NumPy, React, NodeJS
- **Technologies** | Onshape, Git, HTML/CSS

## RELEVANT EXPERIENCE

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- **Stanford Compression Forum | Online Python Programming Intern** **June 2023 - Aug 2023**
  - Researched data compression and medical imaging, resulting in a research paper.
  - Programmed (Python) an intelligent compression algorithm using Facebook's Segment Anything Model, achieving over 50% compression on MRI images.
- **Cotati-Rohnert Park Unified School District | Skilled IT Technician** **June 2024 - August 2024**
  - Assisted in preparing and deploying over 1,000 student devices for the upcoming academic year.
- **FIRST Robotics Competition | Team Captain and Founder, RCHS** **Aug 2022 - June 2024**
  - Founded and led a team of 15 students in the FIRST Robotics Competition, fostering skills in engineering, programming, and teamwork.
  - Secured over \$10,000 in funding through grant writing and community outreach initiatives like business walkabouts. Organized and led workshops on programming (Java), Electrical Engineering (Arduino), design (SOLIDWORKS), and shop safety.
- **SRJC | Team coordinator and Full-Stack Developer Apprenticeship** **Jan 2024-May 2024**
  - Led team 3 in developing a forum-based web app for Common Ground Society, utilizing SCRUM, Human-Centered Design methodologies.
  - Implemented both frontend and backend functionalities using WordPress and JavaScript, enhancing the user experience and accessibility of the platform.
- **TheCodeQuest | Founder and Instructor** **March 2024 - Present**
  - Founded a program that teaches basic programming concepts to students ages 7-12. More than 25 students have been impacted so far.

## COURSEWORK/PERSONAL PROJECTS

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- **RALBOL (Unity, C#)** | Designed and developed an object-oriented game with realistic physics and engaging level-based challenges. Implemented complex game mechanics, including collision detection and physics simulations, resulting in a highly interactive player experience.
- **3-D Printed Bi-Ped Robot (Arduino)** | Developed a low-cost, 3-D printed bi-ped robot, experimenting with various human-like walking algorithms. Integrated sensors and actuators to enable autonomous walking and obstacle avoidance. Documented the project in a detailed report, including design files and source code, and shared it with the online robotics community.
- **Plant-OS (Arduino)** | Created a web app that tracks soil moisture levels for plants, using Arduino sensors and a user-friendly interface. Hosted data and care techniques for different plant species, providing users with tailored advice on plant maintenance.