Kevin Shvodian

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Mechanical Engineering Intern

Highly motivated and skilled recent graduate from the University of California, Santa Barbara. Proven ability to apply engineering principles, AI, and robotics to solve complex problems. Experience in hardware design, embedded systems, computer vision, and rapid prototyping. Seeking an entry-level role in the robotics, hardware, or related engineering industry where I can contribute to innovative projects and continue to develop technical expertise.

Education:

University of California Santa Barbara, CA (June, 2025)

Bachelor of Science, Mechanical Engineering GPA: 3.8

Relevant coursework:

Mechatronics, machine learning, vector calculus, differential equations, fluid mechanics, thermodynamics, circuits, strength of materials, statics, CAD/CAM

Experience:

ShapeShift Crawlers, Hardware Design Consultant (Spring 2025)

- Worked with UCSB physics professor Rob Geller to design a novel lunar exploratory vehicle powered by shape memory alloys
- Completed thermal simulations in ANSYS, designed prototype crawlers in CAD, fabricated prototype crawlers in order to test design reliability

Kev-Bots, Founder/Camp Counselor (Summer 2024)

- Marketed and ran my own Lego robotics camp for middle school students
- Designed an open source, 3d-printable, Lego robotics system to make use of affordable and generic robotics components
- Created a full robotics curriculum suited for campers of multiple skill levels

Hatch, Embedded Systems Intern (Summer 2022)

- Created reference documents for the various custom functions and objects in C used by the embedded team
- Tasked with creating a demo program to showcase a potential new feature of Hatch's flagship product
- Worked alongside the other interns to design and market a potential new product for Hatch, and worked with the CEO to pitch this new product to the entire company

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Projects and Activities:

LaxBot ($3000 CNSI Innovation Grant Winner)

Led a team in the development of "LaxBot," a computer vision-powered sports training robot as part of the 2024-2025 Mechanical Engineering Capstone program. Developed a custom computer vision model for real-time object tracking and implemented it into a native iOS application. Designed, fabricated, and tested custom hardware to accurately aim and launch lacrosse balls.

UCSB New Venture Program:

Competed in UCSB's startup competition with my computer vision powered lacrosse training robot, LaxBot. Developed a business and marketing plan, as well as calculated key metrics.

Lacrosse:

Over 15 years of competitive lacrosse. Started as goalie for UCSB club lacrosse team. Voted co-rookie of the year for the 2022 season. Coached various high school and youth lacrosse programs.

Skills:

- Fusion 360, Solidworks CSWA certified, Onshape, CATIA
- FEA: ANSYS, COMSOL, Fusion, Solidworks
- Rapid prototyping processes (3d printing, laser cutting)
- Computer vision: YOLO, openCV, Kalman filters, MOT
- Machining experience (CNC mill, manual mill, lathe)
- Embedded Systems: C, Arduino, Python
- Circuit Design (component selection, PCB, soldering, SMD)
- Robotics (brushless/stepper motor control, VESC, ROS2)