

Nicolas Camacho

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EDUCATION

University of California, Los Angeles

Bachelor of Science, Mechanical Engineering

Los Angeles, CA

Expected Graduation June 2027

WORK EXPERIENCE

LightManufacturing Inc.

Mechatronics Engineer Intern

Arroyo Grande, CA

July 2025 – October 2025

- Led end-to-end design and build of a solar-powered plastic roto-molding system; commercialized as a \$20K product
- Drove DFM + cost/performance optimization through design iterations, supplier/manufacturing constraints, and tolerance-aware CAD
- Ran engineering analyses (hand calcs + FEA) and executed verification testing to validate structural/thermal performance
- Rapidly prototyped assemblies and fixtures using 3D printing and shop tools to accelerate iteration

BruinCorps

Team Leader

Los Angeles, CA

August 2023 – June 2025

- Lead weekly meetings to uplift my team of 8 Middle School tutors
- Plan college work-shops & events for underserved middle-schoolers and their families

Math and Science Tutor

- Personally tutor 30 Inglewood 7th & 8th graders, helping to improve their grades by 30%
- Work with school staff to maximize student performance through one-on-one tutoring

LEADERSHIP EXPERIENCE

American Society of Mechanical Engineers At UCLA

Combat Robotics Technical Lead

Los Angeles, CA

September 2023 – June 2025

- Teach 45 UCLA students to design and build 3-lb combat robots from start to finish
- Plan and host an internal combat robotics competition of 10 teams at UCLA
- Designed and implemented a new control system for my saw-wielding robot *Buzzsaw* using my Steam Deck
- Create a [website](#) using Notion and Cloudflare to provide how-to guides and a synced calendar

Lab Manager

April 2025 – Present

- Host lab safety trainings for over 100 members of my engineering club
- Train students to use our manual mill, lathe, and soldering irons
- Coordinate space reservation and scheduling with our engineering department and other student organizations

First Robotics Competition, Team Spartatroniks 3512

Team Captain, Lead Robot Designer

Orcutt, CA

September 2019 – June 2023

- Led a team of 40+ students to place top 96 at the world competition out of 8000+ active teams
- Advanced Solidworks skills and reconstructed our curriculum to teach elegant parametric design
- Designed 125-pound competition robots that performed complex tasks
- Led students for an online design competition over Zoom

ADDITIONAL INFORMATION

- **Technical Skills:** Solidworks, Alibre, Arduino, Rapid Prototyping, Physics, KiCAD PCB Design
- **Soft Skills:** Leadership, Teamwork, Strategy
- **Certifications:** Certified Solidworks Associate, ITF+ Cybersecurity Fundamentals
- **Awards:** Hispanic Scholarship Foundation Scholar, AP Scholar, Combat Robotics Innovation Award
- **Relevant Coursework:** Statics, Dynamics, Thermodynamics, Drafting, Materials Science, Electron Microscopy