

Calvin Richards
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Education

Computer Science major at **California Polytechnic State University**
Expected Graduation: June 2028

Clubs & Involvement

CPSEC, CSAI, GDSC – Club Member

- Learning how to make apps using Dart and Flutter.
 - Studying AI training pipelines, satellite security, and side-channel attack methods
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Experience

VEXU Robotics Team
Prototyping, CAD, and Mechanical Assembly
Sept 2025 – current

- Built competitive robots for VEXU challenges with a focus on CAD, assembly, and prototyping.
- Supported iterative prototyping to test and refine robot mechanisms.

Mathnasium - Math tutor
July 2024 - Sept 2024

- Provided 1 on 1 tutoring for students from elementary to high school.

FIRST Robotics – Arroyo Grande High School Robotics Team
Programming Lead & Robot Design Committee Member
Sept 2021 – Jun 2024

- Led software development and organized GitHub-based workflows.
- Programmed an omnidirectional swerve drive train for autonomous and manual control.
- Integrated Choreo GUI tool for autonomous path planning.
- Collaborated with multiple sub-teams to ensure cohesive robot design.
- Designed and prototyped robots using Onshape CAD.

Projects

Autonomous Path Planner Integration
Choreo + FRC Robot Framework

- Developed and tested a path visualization workflow for autonomous robot movement.
- Integrated planned paths into robot code to streamline match preparation.

Technical Skills

- **Languages:** Python, C, Java
- **Frameworks & Tools:** git and GitHub, Onshape, Solidworks, AutoCAD, Google Sheets