AARON J. FANG

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EDUCATION

2019 — 2023 **California Polytechnic State University, San Luis Obispo**
Honors Program; B.S. Mechanical Engineering — Mechatronics Concentration
GPA: 3.91

2015 — 2019 **Newbury Park High School**
Valedictorian; Full IB Diploma Program — 37/45
GPA: 4.73

AWARDS

2019 **Dean's List** Cal Poly, San Luis Obispo

2019 **AP Scholar with Distinction** Newbury Park High School

2018 **Hackademia 2018** Overall First Place; First Place in the Open Source Rover Category
- Created intuitive GUI for creating and executing remote rover paths.
- Used Raspberry Pi, Java, JavaScript, Python and the Open Source Rover for an interactive UI/UX.
- Developed new path tracking algorithm tailored to the kinematic constraints of the rover.

EXPERIENCE

2019 — Present **Cal Poly Racing** Drivetrain Design
- Analyzed static structural loading of critical drivetrain mounts with ANSYS Simulation.
- Designed vibration-resistant chain guard, building upon the previous year's design.
- Used MATLAB to size vibration isolator for drivetrain-to-chassis mounts.

2015 — 2019 **Pantherbotics** President
- Project lead for the 2018 and 2019 student-built robots for the FIRST Robotics Competition.
- Designed mechanical structure using SOLIDWORKS and analyzed potential failure modes using SOLIDWORKS simulation.
- Implemented a novel path-following autonomous algorithm for precise tracking over medium distances (20 meters), with a repeatability within 2 cm.

2017 — 2019 **CodeNation** Co-President
- Spearheaded curriculum for a 50-person programming class offered to the community free of charge.
- Mentored Java, C++, and HTML in a classroom setting.
- Communicated with the community at large regarding student expectations and behavior.

Summer 2018 **Cure4Humanity** Intern
- Sourced supply chain information for a custom hydroponic growing system.
- Processed cost data to justify project feasibility.

SKILLS

Language	Mandarin Chinese, Spanish, English
Design	SOLIDWORKS, Onshape, ANSYS, PhotoView360, Photoshop
Code	C++, Java, Python, Arduino, MATLAB
Fabrication	CNC and Manual Milling, Manual Turning, Laser Cutting, 3D Printing

REFERENCES

Charles Seabury **Pantherbotics Lead Mentor**
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Eric Williams **Cure4Humanity Founder**
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