Ciaran Nimick

Redondo Beach, CA | ciarannimick@gmail.com | (310) 421 6908 | ciarannimick.com | linkedin.com/in/ciaran-nimick

Professional Summary:

A highly motivated and results-driven engineering student pursuing a Bachelor of Science in Mechanical Engineering looking to leverage 6 years of engineering software experience and teaching others into a boundary pushing experience during the summer of 2026.

Education:

Case Western Reserve University - Cleveland, OH ***Expected*** **Spring 2028**

- Bachelor of Science in Engineering - Mechanical Engineering
- Relevant Coursework: Thermodynamics, Statics and Strength of Materials, & Mechanical Manufacturing

Experience:

Suspension Engineer at CWRU Motorsports **June 2025 - Present**

- Designing the 2026 Baja SAE front lower suspension arm, improving ride height, reducing weight, and enhancing serviceability.
- Utilizing Finite Element Analysis, validating multiple components within the front outboard assembly to withstand maximum moments and forces without failure and within a factor of safety to ensure components reached design requirements.
- Aided in developing vehicle setups for various different racing environments through adjustments to suspension and steering.

Test Engineer at CWRU Motorsports **September 2024 - Present**

- Analyzed and designed an adapter to transmit ~500 ft lbs of torque to aid in CVT development.
- Designed a shroud for the CVT Dyno in Siemens NX to dissipate 20kW of heat and ensure safe operation during testing.
- Fabricated components by utilizing milling, turning, and metal bending to meet precise design specifications.

Research Assistant at Case Western Reserve University (WAKANDA Lab) **March 2025 - Present**

- Partnered with graduate researchers to explore magnetoreception in animals, aiming to translate biological navigation strategies into tools for interplanetary exploration.
- Aided in developing a predictive model for satellite movement in extraterrestrial magnetic fields, incorporating generalizable planetary and orbital parameters.

Onsite Robot Technician at Rolling Robots Inc. **March 2022 - August 2023 & May 2025 - August 2025**

- Taught more than 140 students, ages 6-8, the basics of programming and engineering Combat Robots.
- Supervised and mentored students aged 7-14 in competition robotics, fostering technical skills and teamwork.
- Led student robot design classes using Onshape, preparing teams to compete at the state and national levels.
- Instructed and ensured safe usage practices of power tools, including band saws, drill presses, and various handheld tools.

President, Project Manager, & Lead Design at PVPHS VEX Robotics **August 2020- June 2024**

- Designed twelve competition robots utilizing Onshape and Fusion 360 to design and implement team solutions.
- Won five local and state awards, leading to three State Championship and two National Championship qualifications.
- Oversaw a fourfold increase in annual funding, tripled team membership, and doubled the number of competition teams.
- Organized an inaugural robotics event, raising $8,000 and earning congressional recognition from Congressman Ted Lieu.

Skills:

Design: Siemens NX | SolidWorks | Onshape | Fusion 360 | Ansys
Manufacturing: GD&T | Mill | Lathe | Waterjet | CNC Router | Laser Cutter | Drill Press | Band Saw | 3D Printer
Software Languages: MatLab | C++ | Java

Awards & Achievements:

SMERT Department Award Winner **May 2024**
PVPHS VEX Engineering Excellence Award **March 2024**
California VEX Robotics State Championship - Build Award **March 2024**