

Colin Kwok

colinkwok2004@gmail.com | (626)-200-6038 | Rosemead, CA | [LinkedIn](#) | [Portfolio](#)

Summary Mechanical Engineering Senior with 3+ years of experience in CAD, FEA, thermodynamics, and fluid systems. Seeking a career in aerospace and defense technology.

Education **University of California, Santa Barbara.**
Bachelor of Science in Mechanical Engineering | GPA 3.87 | Expected Graduation: June 2026
Completed Coursework: Thermodynamics, Fluid Mechanics, CAD, Circuits, Materials Science
Dynamical Systems, Controls, and Mechatronics

Skills	CAD & Design	Software	Mechanical Fabrication
	<ul style="list-style-type: none">• SolidWorks (CSWA)• Creo• Fusion 360• ANSYS• COMSOL• GD&T	<ul style="list-style-type: none">• MATLAB• Python• Java• Arduino• MS Office Suite• Latex	<ul style="list-style-type: none">• Sheet Metal Cutting and Bending• FDM & SLA 3D Printing• Laser Cutting• Manual & CNC Machining• Waterjet Cutting

Work History **Workshop Wizard Lab Assistant Intern**
California Nanosystems Institute, Santa Barbara | 6/2023 – Present

- Mentored 100+ students and researchers in CNC machining, 3D printing, and rapid prototyping
- Collaborated with research teams to design and fabricate over 100 experimental tools, including custom mechanical fixturing for wind tunnel and deep sea testing
- Maintained and troubleshoot 10 3D printers and CNC tools to resolve mechanical problems

Product Engineering Intern
Glenair Inc., Arcadia | 6/2024 - 9/2024

- Designed 3 fiber optic connectors for naval communication, expanding the product line
- Created SolidWorks CAD models and GD&T drawings to machine 25 prototype connectors
- Developed and conducted signal tests on prototype connectors, measuring transmission strengths at 30% higher than minimum requirement
- Analyzed assembly issues of 100 in production connector, implementing drawing changes to ensure fitment

Manufacturing Engineering Intern
ITT Inc. | 6/2025 - 9/2025

- Wrote and performed test procedure to validate performance of solenoid valve in 160 F temperature environment
- Utilized LabView data acquisition device to record temperature and voltage in temp chamber
- Documented results in engineering test reports to identify max temperature and duty cycle

Engineering Projects **Mechanical Technical Director** | 6/2025 – Present
Powertrain Team Lead | 9/2022 – 6/2025
University of California, Santa Barbara Gaucho Racing

- Directed a multidisciplinary team to design and integrate drivetrain, structural, and thermal system, achieving a 16% overall weight reduction
- Utilized free body diagrams, hand calculations, and ANSYS FEA to maintain the safety factor of 2 and max displacement of 0.5 mm for aluminum drivetrain mounts and steel fasteners
- Created over 10 GD&T drawings for drivetrain components, defining manufacturing tolerances
- Designed and fabricated 20 sheet metal components for motor, chain, and battery casings
- Utilized thermodynamic hand calcs and testing to develop liquid cooling system for battery and motor, ensuring max temperature of 60 C