

Joseph Hall

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OBJECTIVE STATEMENT

I am a prospective Mechanical Engineering graduate seeking a full time position beginning Summer/Fall of 2027.

EDUCATION

California Polytechnic State University, San Luis Obispo (Cal Poly)

Bachelor of Science in Mechanical Engineering (Energy Resources Concentration), May 2027

PROFESSIONAL EXPERIENCE

BIW Connector Systems, ITT Inc.

June 2026 - Aug. 2026

Engineering Intern

- Redesigned Metal Lok Ultra connector components in Creo to achieve a 39% assembly cost reduction whilst meeting the 10,000 psi and 350°F environmental requirements in a C1D1 hazardous environment.
- Designed a 13 component o-ring installation tool and conducted a design review with the design engineering team.
- Coordinated with other departments and outside suppliers to establish component pricing, lead times, and logistics.

Sematool Precision Manufacturing

June 2025 - Sept. 2025

Mechanical Engineering Intern

- Held meetings with clients to formulate and design engineering solutions to industry problems.
- Coordinated with programmers and machinists to ensure ISO 9001 specifications and customer requirements were met.
- Operated wire cut and sinker EDM machines to make precision fixtures and dies within ± 0.0005 tolerances.

Gonsels Machine Shop

June 2024 - Sept. 2024

Machinist

- Fabricated precision metal components using manual mills, lathes, and traditional machining processes.
 - Utilized CMM machine to inspect parts for quality control with μm level accuracy.
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PROJECT EXPERIENCE

Shroud Baseplate, Cal Poly Wind Power

October-December 2025

- Designed a structural baseplate for shroud prototype to improve energy capture and aerodynamic performance.
- Validated the design through finite element and vibration analyses, ensuring adequate stiffness and structural reliability during a worst-case-scenario event.
- Collaborated with a multidisciplinary team to fabricate, integrate, and test the prototype on the competition turbine.

"Metal Lok Ultra Lite" Professional Project, BIW Connector Systems

June-August 2026

- Developed a 45-component cost model to evaluate design alternatives and establish economic feasibility.
 - Redesigned elastomeric sealing mechanisms in Creo Parametric and validated performance through pressure, thermal, and electrical testing.
 - Presented results to upper management and wrote a technical Design Specification and Qualification Test Plan.
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SKILLS & CERTIFICATIONS

- Computer: Creo Parametric, SolidWorks, Matlab, Windchill, MasterCam, SAP, Microsoft Office Suite
 - Equipment: 3D Printing, Manual Mill, Manual Lathe, CMM, Wire/Sinker EDM, Surface Grinding, primary machine shop equipment (welding, saws, drills, etc.)
 - Certifications: Engineer In Training (EIT, FE Mechanical)
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INVOLVEMENTS

Turbine Design Team, Cal Poly Wind Power

Dec. 2024 - Present

Treasurer, Mustang Surf Club - Cal Poly

Oct. 2023 - Present

Student Athlete, Cal Poly Triathlon Team

Sept 2024 - July 2026