

# JACKSON ZILLES

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## Education

University of California, Berkeley | B.S. Mechanical Engineering Expected Graduation - May 2025

❖ **Relevant Coursework**

GPA: 3.6/4.0

3-D Modeling | FEA | Solid Mechanics | Product Development | Thermodynamics | Manufacturing & Design  
Communication | Material Behaviors | Fluid Mechanics | Electronics | Human Factors Design | Prototyping

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## Skills and Certifications

- ❖ **Technical Skills:** Parametric Modeling / DFM / Design for Assembly / GD&T / PLM / Rapid Prototyping
  - ❖ **Fabrication:** CNC Milling / FDM, SLA 3D Printing / Laser & Waterjet Cutting / Lathe / Engineering Drawings
  - ❖ **Software Skills:** SolidWorks / Fusion 360 / CATIA / MATLAB / Adobe Creative Suite / Microsoft Office Suite
  - ❖ **Certificates:** Berkeley SCET Entrepreneurship Certificate / Berkeley Certificate in Design Innovation
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## Experience

### Mechanical Engineering Co-op – Tesla

Jan 2024 – Current

- ❖ Leading R&D to redesign electromechanical assembly using CATIA, optimizing for cost and ease of assembly; designing PCBAs, plastic connectors, and custom housing; collaborating with suppliers to manufacture
- ❖ Designing new line of accessories for upcoming vehicle platforms, including custom robot arm end effectors
- ❖ Conducting and documenting testing of seating systems for multiple vehicles, leading to swift design changes

### R&D Intern – Stryker

May 2023 - Sept 2023

- ❖ Designed and prototyped a new multi-piece surgical device for use in multiple joint spaces, with all pieces designed for injection molding and rapid hand assembly; included a custom foam insert for rapid unloading
- ❖ Iterated CAD models in Solidworks PDM, undergoing regular design reviews and iterations, resulting in a completed CAD assembly and functional 3D printed prototypes used for testing in simulation bone
- ❖ Tested new and in-development products with various instruments (Keyence, Instron, force gauges)
- ❖ Designed test fixtures, created industry-standard reports and presentations of testing protocols and results

### Product Design – BEAR Adventure Vehicles

Jul 2022 - Sept 2022

- ❖ Created modular interior furniture design pieces for pickup truck bed campers in Fusion 360, standardized layouts of base models to create a starting point for client customizations resulting in streamlined process
- ❖ Created full-size augmented reality models to allow customers to visualize a camper before a build start
- ❖ Collaborated with team members to improve design choices for cost and space limitations as well as standardize parts for use in various models, decreasing overall labor hours for manufacturing by 20%

### Design and Manufacturing Lead – Adjustable Stool Backrest

Sept 2022 - Dec 2022

- ❖ Used Solidworks to design a backrest for a bar stool with three adjustable points, including a spring-loaded telescoping clamp; utilized GD&T to achieve accurate machining and fits, leading to a functional prototype
  - ❖ Machined 14 individual parts using a mill, lathe, water jet, 3D printer, band saw, and metal bending
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## Leadership Experience

### Founder – Surge Electric Motorcycle at Berkeley

Aug 2023 - Current

- ❖ Founded and recruited talent for a non-profit engineering competition team focused on designing, building, testing, and racing an electric motorcycle as part of the Formula Lightning student challenge
- ❖ Currently retrofitting a Honda CBR600 with custom components for a race quality electric conversion

### External Vice President – Engineering Solutions at Berkeley

Dec 2023 - Current

- ❖ Spearheaded client acquisition efforts to source projects each semester, resulting in consistent revenue stream of \$30,000 per semester while improving existing dated resources for sourcing for future members
- ❖ Procured industry talent to present and educate members as well as hosted private recruitment events

### Senior Engineer – Engineering Solutions at Berkeley (Sentien Robotics)

Aug 2023 - Dec 2023