

# JACKSON ZILLES

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## Education

University of California, Berkeley | B.S. Mechanical Engineering

May 2025

### ❖ Relevant Coursework

GPA: 3.7/4.0

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

## 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 / CATIA / NX / Onshape / MATLAB / ANSYS / Python / Arduino / Altium
- ❖ **Certificates:** Berkeley SCET Entrepreneurship Certificate / Berkeley Certificate in Design Innovation

## Experience

**Project Manager, Design Engineer – Endiatx – Engineering Solutions at Berkeley** Aug 2024 - Dec 2024

- ❖ Consulted for Endiatx with ESB, led a team of 5 engineers to design, prototype, manufacture, and test an automation-focused biomedical manufacturing product to enhance efficiency in a production environment
- ❖ Developed mechanical designs and process improvements for a precision assembly system, optimized for manufacturability and reliability, utilizing Solidworks, electronics design, and controls design
- ❖ Led cross-functional collaboration, managed timelines and technical execution to drive successful delivery

**Mechanical Engineering Co-op – Tesla - Seating Engineering**

Jan 2024 – Aug 2024

- ❖ Redesigned internal tool, designed housing using CATIA and PCB in Altium, optimized for cost and ease of assembly, collaborated with suppliers, resulting in an 82% cost down and a 90% assembly time decrease
- ❖ Designed, prototyped, and presented to executives an industry-first mechanism for seat adjustability to increase performance capabilities, including pneumatic-controlled air cells and resistive switch control
- ❖ Discovered, modified, and implemented a supplier part change creating an annual cost savings of \$19k
- ❖ Designed, validated, and released production parts for Model 3 and Model S performance seating systems

**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
- ❖ Designed and ran mechanical testing of in-development products with various instruments (Keyence, Instron, force gauges), resulting in design changes and final material choice based on performance metrics

**Product Design – BEAR Adventure Vehicles**

Jul 2022 - Sept 2022

- ❖ Designed modular camper interiors in Fusion 360, standardized layouts for streamlined customization, leveraged AR for client visualization, and optimized designs to cut manufacturing labor by 20%

## Leadership Experience

**Founder & President – Surge Electric Motorcycles at Berkeley**

Aug 2023 - Current

- ❖ Founded and led Berkeley's first electric motorcycle team, designing, building, and racing a high-performance EV for the Formula Lightning competition, including recruiting 20+ members and managing subteams
- ❖ Aided development of a high-power battery pack and custom powertrain system for an electric conversion

**External Vice President – Engineering Solutions at Berkeley**

Dec 2023 – Aug 2024

- ❖ Spearheaded client acquisition efforts to source projects each semester, resulting in a 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