Katherine (Katie) Schutt

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Education

University of Colorado Boulder GPA: 3.87/4.00
- Bachelor of Science in Mechanical Engineering Expected Graduation: May 2024
- Minors in Media Production and Leadership Studies
- Engineering Honors Program, Presidents Leadership Class, Boettcher Scholar

Professional Experience

Zipline International Inc. South San Francisco, CA
Mechanical Engineering Intern June 2023 – September 2023
- Owned the design of an end-of-line tester for the primary structural components in Platform 2 delivery drone
- Modeled NX assembly and prototyped tester architecture with custom fixturing/interface components for multiple load cases

LifeFormations Cincinnati, OH
Mechanical Engineering Intern May 2022 – August 2022
- Collaborated with digital sculpting, manufacturing, electrical controls, painting, and costuming teams to design and assemble animatronics for high-profile clients in the entertainment industry
- Utilized SolidWorks (400+ hrs) to model metal and plastic components for figure armatures and draft engineering drawings
- Manufactured metal parts that shipped in final products and assisted on assembly floor with troubleshooting

Sandia National Laboratories Albuquerque, NM
Virtual Technologies and Engineering Intern August 2021 – April 2022
- Utilized Unity, C#, and Python to prepare and debug animations of critical nuclear safety mechanisms for use in VR

Colorado Space Grant Consortium Boulder, CO
RockOn! Hardware Team January 2020 – June 2021
- Built and tested custom PCBs, sensors, and connectors for sounding rocket payloads launched at NASA's Wallops Flight Facility as part of a national educational workshop which received a NASA Agency Honor Award for Group Achievement

Engineering Project Experience

Wheelchair-Mounted Frisbee Golf Disc Launcher Boulder, CO
Electromechanical Engineer and Logistics Manager August 2022 – May 2023
- Programmed Arduino system that allows a quadriplegic user to launch a disc at varying distances using only two buttons
- Sized motor and accompanying electronics to design the schematic, built out electronics enclosure, and tested safety limits
- Managed project schedule for a team of five and coordinated/documented interactions with clients and vendors

Electric Snow/Skate/Wake Winch Cupertino, CA & Boulder, CO
Personal Project March 2021 – May 2023
- Designed, machined, built, and iterated fully functioning winch that coupled DC motor to a chain drive and reel to tow riders
- Wrote Matlab script and performed Ansys FEA simulations to select components and determine factors of safety
- Modeled full winch in Fusion 360 and utilized SolidWorks to create engineering drawings for manufacturing

Drill-Powered Bicycle Boulder, CO
Manufacturing Engineer August 2021 – December 2021
- Learned key DFM principles and manufacturing skills after being trained on mill, lathe, waterjet cutter, and in MIG welding to make all custom components for an electric bike with a drill-powered drive train

High-Altitude Lightning Detection Satellite Boulder, CO
Electromechanical Engineer August 2019 – December 2019
- Integrated sensors, heating system, GoPro, and custom PCB to serve as a VLF radio wave receiver to detect lightning strikes
- Successfully launched experiment to 104,000 ft on a weather balloon and was invited by professor to join CO Space Grant

Leadership Experience

CU Boulder Department of Mechanical Engineering Boulder, CO
Student Apprentice May 2021 – Present
- Led recitations and individual student meetings as a teaching assistant for undergraduate career development course
- Served as photographer, panel facilitator, and logistical/technical support for industry events hosted by department

Skills

3D Modeling: SolidWorks (CSWA), Siemens NX, Fusion360, Unity
Manufacturing: MIG Welding, Mills, Lathes, Waterjet & Laser Cutting, Tapping, Drills, Saws, Hand Tools, 3D Printing
Programming Languages: C++, MATLAB, Arduino, C#, Python
Artistic & Business Tools: Adobe Creative Cloud (Photoshop, Premiere Pro, Lightroom), Microsoft Office Suite (Excel, Word)

Certfications

Mechanical Engineer in Training (FE Mechanical Exam), Issued by NCEES April 2023
Certified SolidWorks Associate (CSWA), Issued by Dassault Systems, December 2020