Kelly Smith

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EDUCATION

University of Colorado Boulder | Boulder, CO   *May 2025*

B.S. Integrated Design Engineering | Mechanical Engineering Emphasis   GPA: 3.5

Creative Technology and Design Minor

SKILLS

Programs | SolidWorks, MATLAB, Python, Arduino, LabVIEW, Windows, Adobe, EES

Technical | 3D printing, laser cutting, shop & metalworking fabrication, universal test machines

Languages | Spanish: limited working proficiency

AWARDS & PUBLICATIONS

CU Boulder Chancellor's Achievement Scholarship

- Awarded to out-of-state students in the top 25% of their admitted class

Publication: *Coronal Heating as Determined by the Solar Flare Frequency Distribution Obtained by Aggregating Case Studies*

- Worked with Johns Hopkins physicist in experimental physics course to analyze solar flares using Python

PROJECT EXPERIENCE

Cochlear Implant Surgical Instrument | Senior Design   *Aug 2024 – May 2025*

- Worked alongside a surgeon at Children's Hospital of Colorado to design a new, less invasive method to insert cochlear implants into the human body
- Utilized programs including SolidWorks and MATLAB to design instrument prototypes along with the Microsoft Suite and Microsoft Teams to collaborate with and create reports with team
- Personal role of Manufacturing Engineer involved material sourcing and optimization, research and selection of manufacturing methods, and working closely alongside the CAD engineer to ensure machinable designs

Light Bulb Study | Data Analysis   *Jan 2024 – May 2024*

- Partner project designing an independent study using the experimental design process to analyze the output efficiency of different lightbulb brands
- TI DAQ and LabVIEW used to acquire data and then Excel used to perform statistical analyses to compare brands

Skee Ball Game | Circuits   *Aug 2023 – Dec 2023*

- Team manager of a group of 4 in creating a tabletop-sized, Star Wars-themed skee ball game
- Led circuitry and Arduino coding to integrate theme song, lights, IR sensors, and piezo buzzers
- Optimized the design of a custom PCB to integrate into the system

PROFESSIONAL EXPERIENCE

CU Boulder | Data Analysis Course Assistant **|** Boulder, CO   *Jan 2025 – May 2025*

- Guided students during lab sessions by answering questions and troubleshooting technical issues in LabVIEW, Excel, and data acquisition (DAQ) systems
- Assisted in grading assignments and providing feedback on topics including data analysis, statistical analysis, and experimental design

Children's Dentistry | Front Desk Coordinator **|** Boulder, CO   *Sept 2022 – Aug 2023*

- Learned health & business practices including dental anatomy, collecting payments and recruiting new patients
- Effectively communicated with insurance companies to update patient coverage, process insurance payments
- Helped initiate changes to facilitate a smooth team transition between practice owners during business sale