WILL FRASER

STUDENT AT UNIVERSITY OF COLORADO BOULDER
PORTFOLIO: WILLFRAS.CO

SKILLS

- Electrical circuit design and troubleshooting
- Schematic and PCB design and manufacture using Altium and EAGLE
- Experience with machining using manual lathes and mills, and CNC machines
- Proficient in Fusion 360 for 3D modeling and design
- Skilled in programming languages including C++, Python, and Java
- Familiar with testing and measurement equipment such as oscilloscopes and multimeters
- Strong problem-solving skills and attention to detail

HOBBIES

- Backpacking and hiking in the Rocky Mountains
- Passionate about electronics and enjoy working on personal projects in my free time

RECENT PROJECTS INCLUDE:

- Self-balancing robot
- Designing and building an 8-bit computer
- Constructing a PCB etching tank
- Building a small Gameboy emulator from scratch
- Designing and building an induction heater
- Creating a battery management and protection system for future use on portable computers or electric transportation

EXPERIENCE

INTERN • BIG RIVER ENGINEERING AND MANUFACTURING • JUNE – JULY 2019 & 2020

- Diagnosed and repaired a laser welder.
- Diagnosed and repaired the DC rectifier used in the electropolishing process.
- Conducted lot inspections to ensure the quality of medical devices.
- Stripped and refinished the break room tabletop.
- Cut lids off 55-gallon drums for recycling.
- Installed LS4 engine in Jaguar XJ8.
- Reference: Tom Roehm (tom@bigrivermemphis.com, 901-382-0609)

TEAM MEMBER • RHODES COLLEGE • AUGUST – MAY 2020

- Worked with a group of graduate students on a CubeSat project aimed at testing the efficiency of a new solar cell design which is planned to launch this year.
- Worked on connecting the few nanometers thick contact pad on the solar cells to the onboard electronics.

PROJECT • CU BOULDER ECEN 1400 • AUGUST – DECEMBER 2022

- Worked with a team of students to create a belt that could detect objects and warn people with visual impairments of those objects.
- Designed the overall structure and electronics for the project.
- Built and tested the electronic components, including the sensors and directional audio alert system.
- Collaborated with team members to ensure that the project was completed on time and won the best project award for our section.

EDUCATION

- Current Freshman at CU Boulder, pursuing a master's degree in electrical engineering and a minor in physics. Current GPA: 3.0
- Entered with 35 AP credits
- Completed 15 credits in first semester, 18 credits in second semester, and planning to take 18 credits in third semester.

VOLUNTEER EXPERIENCE OR LEADERSHIP

- Ambassador at Memphis University School where my duties included touring perspective student families and helping plan and set up school functions
- Civic Service Organization, distributing food and necessities to those in need
- Peer tutor for STEM subjects, specializing in physics.

WILLFRAS@ME.COM

WILLFRAS.CO

(901) 485-3110

LINKEDIN.COM/IN/WILL-FRASER-92780B15A/