

Colin Sauder

303-808-2458 • Evergreen CO • cfsauder@gmail.com

Education

Colorado School of Mines

3.69 GPA

Senior, August 2024 - May 2026

- Bachelors of Science in Engineering Physics

Relevant coursework:

Circuits, Digital Circuits, Intermediate Mechanics, Mathematical Physics, Intermediate Electrodynamics, Advanced Lab 2, Field Session

University of Denver

September 2022 - May 2024

3.87 Final GPA

- Bachelors of Science in Physics (Incomplete)
- Minor in Mathematics

Relevant Coursework:

Statics, Programing (Python), Astrophysics: Radiative Process, Error and Uncertainty Analysis, Modern Physics 1 & 2 (Quantum), Modern Physics Lab

Projects / Coursework

Van Der Graff Generator

- Built a working, low voltage, Van Der Graff generator independently from a vinyl / nylon triboelectric effect.
- Used it to demonstrate the potential for a lint roller using electrostatic force.

Jewelrymaking

- Created several different jewelry pieces (rings, pendants, bracelets) through primarily casting
- Independently learned to use various tools and methods to create and refine these different jewelry pieces.

Field Session

- Created a receiver for a spark gap transmitter using physical circuitry and labview to output a morse code readout using the length of the spark produced.
- Worked in a small team to create a 3d projection using both linearly and circularly polarized laser light.
- Learned and experimented with different vacuum systems to understand their operation and how to utilize them for different functions like deposition or mass spectrometry.
- Machined a working pair of compasses from stock metal.

Modern Lab 1 & 2

- Conducted experiments regarding radiation including measuring half lifes, gamma ray absorption, coincidence measurements, and others.
- Used a photomultiplier tube submerged in liquid scintillator to detect and measure the lifetime of a muon, getting a value within 2% of accepted.
- Worked independently with various historical physics experiments (Michelson-Morley, Young's Double Sit etc) to verify and understand their results.

Work Experience

Colorado School of Mines, Golden, CO

August 2025 - Present

Physics 2 Studio TA

- Reinforced foundational electromagnetic concepts for students during studio.
- Tortured students to help with homework problems.

Bergen Bark Inn, Evergreen, CO

May 2024 - Present

Kennel Tech / Pet Pro

- Cleaned dog kennels and ensured the wellbeing and health of the up to 50 animals in our care.
- Worked independently and in small teams (2-4) to close the kennel.

Community Involvement

Denver Museum of Nature and Science

March 2025 - Present

Facilitator volunteer

- Helped facilitate childhood and community learning in various scientific fields using museum carts.
- Communicated and taught foundational concepts of experimentation and robotics to children through hands-on learning.

Skills

Technical

- Microsoft Excel, Word, Python, C++, MATLAB, Arduino, Wolfram Mathematica, HTML/CSS, LaTeX

Laboratory

- Labview, Data Collection, Data Analysis