YOUSSOF SOLIMAN

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EDUCATION

Colorado School of Mines, Golden, CO May 2029
B.S. in Electrical Engineering | Undergraduate GPA: 4.0 | Planning on a Master in EE

WORK EXPERIENCE

Colorado School of Mines, *Computer Science Front Desk*, Golden, CO Sep 2025 – Dec 2025

- Collaborated with the CS Department and was responsible for **administrative** and customer service duties such as data entry, assisting with marketing material, and being the point of contact for others.

PROJECTS

- **Advanced STM32 Development Board:** Designed an advanced STM32 development board with over 100 pins for the software department to run tests on the car. Embedded Arduino **GPIOs** to allow for the integration of an Arduino Nano for further testing. Utilized Altium for PCB schematics and routing. Circuit design included integrating a **USB-C** for connectivity, **a buck converter**, **CAN** transceivers, **I2C**, **SPI**, **JTAG**, and an **LDO** for voltage regulation.
- **Thermocouple Reading Device V1 (TRD-1):** Designed and produced a temperature sensor using Altium for a high temperature **(200°C)** custom oven for baking race car carbon fiber parts. Prevented the aerodynamics team from using the electric department's multimeters as heat sensors.
- **Custom Temperature Sensor App:** Programmed and engineered a temperature monitoring application by utilizing Arduino sensors **(C++)**, **Swift** for the iOS UI, and a **python-based server** for real-time visualization and data logging. Removed the need to constantly get up and check the thermostat.

EXTRACURRICULARS

Mines Formula SAE, *Electrical Engineer*, Golden, CO Aug 2025 - Present

- Collaborating with a group of engineers and designing the **low voltage** electronics for a custom-built race car that goes from **0-60** in under **4 seconds**.
- Currently in the process of mastering **Altium** and finishing a heat sensing PCB that would permit the aerodynamic department to tell the temperature of the interior of their custom-built carbon fiber oven.
- Responsible for designing a development board for the **BSBD** of the car which is responsible for the safety mechanisms. Began by designing a block diagram then moved on to the **schematic capture** of the PCB.

Rocket Club, *Engineer*, Golden, CO Aug 2025 - Present

- In the process of designing and engineering **L-1 and L-2** propelled rockets that reach speeds of well over **Mach 1.0** and apogees of above **1100 meters**. Utilized Software such as **SolidWorks** and **OpenRocket** for the design and tools such as the **EpilogLaser** cutter for the fins and the **Bambu XL Carbon** 3D printer for the nose of the rocket.

Cyberpatriot Open Division, *Linux Competitor*, Allen, TX Sep 2024 – Dec 2024

- Qualified for open division against **3080 teams**. Placed in platinum; **top 20%** of all open teams in Texas and **top 30%** nationwide.

CERTIFICATIONS

- **C/C++ CERTIFICATION** - The University of Santa Cruz**:** Familiarized myself with the syntax of C/C++ and succeeded in finishing the final project of the course.
- **CS50X CS** - Harvard University**:** Grasped the philosophy behind CS and what a programmer's responsibility is. Developed further C++ skills when it came to problem solving and understanding pointers.
- **CS50X PYTHON** - Harvard University**:** Comprehended python syntax and general use for everyday tasks. Familiarized myself with some important libraries such as NumPy and Flask.

SKILLS

- *Computer Skills:* C, C++, C#, Python, Altium, Arduino, Fusion360, SolidWorks, MATLAB, Java, CSS HTML, SQL, Git, Linux, Microsoft Office Products
- *Language Skills:* English – Fluent, Arabic – Fluent, German – Intermediate