

# ABDULRAHMAN ALMUTAIRI

720-473-3325 | ab.almutairi75@gmail.com | linkedin.com/in/abalmutairi | github.com/ABAIm

## Objective

- Seeking opportunities to apply my growing expertise in embedded systems, PCB design, computer organization, and power electronics. I aim to contribute to teams where I can design, analyze, and build reliable hardware and firmware while continuing to expand my engineering skill set.

## Education

### University of Colorado at Boulder

Bachelor of Electrical and Computer Engineering

Sep. 2022 – May 2026

Boulder, CO

## Relevant Coursework

- |                          |                    |                         |                         |
|--------------------------|--------------------|-------------------------|-------------------------|
| • Senior Capstone Design | • Circuits         | • RTOS                  | • Software Development  |
| • Data Structures        | • Microelectronics | • Computer Organization | • PCB Design and Layout |
| • Digital Logic/Systems  | • Discrete Math    | • Embedded Software     | • Computer Security     |

## Experience

### Programmer Internship at Coded

Front-End Developer

May 2019 – July 2019

Kuwait

- Developed and styled front-end components for a client shopping website using HTML/CSS, ensuring a clean and usable design that met customer requirements.

## Projects

### NASA JPL Mars Hard Lander Electrical System | *Capstone Phase 1*

Dec 2025

- Developed the power subsystem for the Mars hard-lander by building a 3S3P Li-ion battery pack with BMS protection and designing the PCB for the antenna circuit.
- Assembled and welded the custom 3S3P battery pack and validated BMS protection and balancing.
- Contributed to the system power budget, selecting buck converters for the 12 V, 5 V, and 3.3 V rails.

### Board 4 – Custom 4-Layer Arduino-Compatible Instrument Droid | *Altium Designer*

Apr 2025

- Designed and built a custom 4-layer Arduino-compatible board capable of measuring Thevenin parameters using a programmable load stage and precision ADC readings.

### Super RoboCar – Autonomous Robot Vehicle | *Electronics Design Lab*

May 2024

- Built an Arduino-based autonomous car using ultrasonic sensing and an H-bridge motor driver for real-time obstacle avoidance. Integrated sensor logic and on-board LCD diagnostics.

### Prevent-a-Dent | *C++, Arduino*

May 2022

- Built a wireless ultrasonic parking-assist system using NRF24L01 radios to transmit distance data to a seven-segment display mounted inside the garage.

## Technical Skills

Languages: Python, C, C++, HTML/CSS, JavaScript, SQL

Developer Tools: STM32CubeIDE, VS Code, Docker, Git

Platforms/Microcontrollers: STM32, Arduino, ATmega328P

PCB Design: Altium Designer, KiCad

Operating Systems: Windows, Linux, MacOS