

Robert Clukey

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OBJECTIVE

Robotics Engineer looking to make an impact in the field of robotics, also seeking CAD and circuitry.

EDUCATION

Texas A&M University, College Station, Texas

May 2025

Robotics Engineering – B.S. Interdisciplinary Engineering

Electrical Engineering Minor

Summa Cum Laude, GPA: 4.0, Dean's Honor Roll

Coursework

Embedded Systems Development in C – Applied C programming language to Arm STM Microcontrollers.

Electronics – Designed, built, and tested analog amplifiers to meet design specifications.

Mechatronics – Devised and prototyped a vending machine using digital logic and analog circuits in mechanical systems.

Dynamics and Modeling of Mechatronic Systems – Derived EOMs for mechatronic systems involving moving objects.

System Safety Engineering – Applied system safety techniques to semiconductor manufacturing process.

Certifications

Introduction to Artificial Intelligence Using Python Certificate, Harvard University

September 2023

- Studied TensorFlow and large language models.

Web Development Using Python and JavaScript Certificate, Harvard University

September 2024

- Used HTML, Python, and JavaScript to build custom websites.

PROJECTS

Subsea ROV (Senior Capstone)

- Led development of chassis and propulsion subsystems for smaller, more maneuverable, and cheaper, next generation subsea remotely operated vehicle (ROV) design.
- Designed to be similar in shape and size to human torso, easily scalable to fit the needs of customers, cheaper than current industry leaders, and neutrally buoyant with self-orienting capabilities.

Vending Machine

- Fabricated and tested method for implementing vending machine with capacity of handling coins and products with Arduino Mega microcontroller.
- Developed servo control algorithms on Arduino microcontrollers, integrating real-time sensor input using I2C.

Personal Projects

- Personal website: Coded personal web-based application using Python, HTML, JavaScript, CSS, and dynamic content.

ACTIVITIES

Interdisciplinary Engineering Association, Texas A&M University

September 2022 – May 2025

Treasurer

- Managed budget and spoke with companies about sponsorship opportunities.
- Advised Freshmen about Interdisciplinary Engineering and what the discipline entails.

Phantom Invents, College Station, Texas

- Participated in weeklong workshops with students and military to solve problems military is currently experiencing.
- Devised, prototyped, and presented solutions to stakeholders and military personnel.
- June 2023 project: Improved command post structure to decrease set up and tear down times by 70%.
- May 2024 project: Created multilayered defense system against drone warfare, such as seen in Russo-Ukrainian War.

SKILLS

Programming Languages: Python, C/C++, Verilog, HTML, MATLAB, Git, LaTeX, Java, CSS, SQL, JavaScript

Engineering Software: SolidWorks, Fusion 360, I2C, ROS, Multisim, LT Spice, Simulink, LabView

Engineering Hardware: Arduino, STM32 Microcontrollers, FPGA, NI Analog Discovery 2

Languages: Level 5 (ILR) – English

Level 2 (ILR) – Italian, Spanish, Swedish