DAVID J. RYAN

Computer and Robotics Engineer | University of Nebraska Lincoln

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WORK EXPERIENCE

Robotics Engineering Intern
Blue Origin, Honeybee Robotics - Aerospace Robotics

📅 Summer of 2022   📍 Los Angeles, CA

- Wrote, from the ground up, the control software to dynamical manage a sub-orbit 0g research experiment for mining asteroids.
- Designed and fabricated a multi-protocol transceiver PCB to communicate between in-house hardware and proprietary Blue Origin hardware.
- Using signal processing, filtered and interpolated the experiment data into a useful format for the client.

Computer Engineering Intern
Virtual Incision Corporation - Medical Robotics

📅 Summers of 2019, 2020, 2021   📍 Lincoln, NE

- Developed a driver from scratch for the STM32 micro-controller family and the TI LDC1101 inductance to digital converter.
- Developed and tested an inventory temperature monitoring and alert system as well as a highly sensitive camera equipment calibration device.
- Wrote detailed Software Specifications for a manufacturing software code base.

Software Development Intern
Ricoh - Electronics company

📅 Spring 2022   📍 Lincoln, NE

- Participated in a core team dedicated to providing a well-defined vision and framework for Ricoh's Digital Services strategy, portfolio, and roadmap.

Teachers Assistant
University of Nebraska Lincoln - Computer Science II

📅 Fall 2019 – Spring 2020   📍 UNL

- Provided tutoring and office hours to students taking CSCE-156 (Introduction to Object-Oriented Programming).
- Graded and provided feedback for submitted assignments.

TECHNICAL ABILITIES

- Extensive experience with autonomous UAV development using ROS (Member of the UAV club at UNL).
- Expertise with Popular micro-controllers such as Arduino, STM32, ESP32/8266.
- Strong ability to Repair, Assemble, and Operate 3D printers.
- Advanced knowledge of Git and Github as version control tools (github.com/dj-ryan).
- Proficient in common communication protocols: RS232, CAN, SPI, I2C
- Long term experience with Team organization programs such as Trello, MS Teams and G-Suite.

EDUCATION

B.S. in Computer Engineering

- Robotics Engineering Minor
- Mathematics Minor

University of Nebraska Lincoln

📅 2018 – 2023 | Senior Status

🎓 Selected for Nebraska Honors Program

💲 Awarded the Regents Scholarship

🏛 Member of the Dean's List

LANGUAGES

C, C++
Python
Rust
ROS
Java, C#

STRENGTHS

| Anti-Box Thinker | Quick Adapter |

| Motivator & Encourager | Optimist |

| Embedded Systems | Robotics | ROS |

| STM32 | Low-Level Software | Linux |

| Git Version Control | Technical Data Sheets |

BIO

  I am a Computer Engineer with significant experience in Embedded Systems and Robotics. I am skilled in low level programming languages, such as C and C++, specifically in the realm of microprocessor development. I am Passionate about the world where Software and Hardware collide!

Technical Interests

- Quantum Computer Technology | Space Exploration (James Webb & SLS!) | Machine Learning in Robotics

Hobbies

- Love Rock Climbing | Average at Chess | Avid Formula 1 Fan | Racing Drones