Daniel Maienza (978) 604-3987

www.linkedin.com/in/daniel-maienza/ | Wilmington, MA 01887 | daniel_maienza@student.uml.edu

EDUCATION

University of Massachusetts Lowell, Francis College of Engineering
M.S. in Electrical Engineering Anticipated May 2024
Relevant Coursework:

EECE.5841 — Computer Vision and Digital Image Processing
EECE.5760 — Principles of Solid State Devices
EECE.5130 — Control Systems
EECE.5150 — Power Electronics

University of Massachusetts Lowell, Francis College of Engineering
B.S.E. in Electrical Engineering and Physics (Additional Major) December 2023
GPA: 3.98, Honors College

Wilmington High School, MA May 2020
Class rank: 9 out of 220, GPA: 4.06 out of 4.30
Coursework: All core curriculum classes were either honors or AP level

TECHNICAL & SOFT SKILLS

Languages: Python, C, Matlab
Software: Altium, Multisim, LTSpice, Autocad, Digilent Waveforms, Github, Arduino IDE, Microsoft Excel/Teams
Lab Equipment: Oscilloscope, Function Generator, Multlimeter, Spectrum/Network Analyzer, Arduino, Raspberry Pi
Soft Skills: Strategic/Critical Thinking Skills, Flexibility, Active Listening, Open Mindset, Problem Solving

WORK EXPERIENCE

Electrical Engineer Intern, L3Harris May 2022 - August 2022, May 2023 - August 2023

- Calculated final mass estimate for flight-ready RipCurl cables using BOMs, CAD drawings, and part manufacturing specs to ensure product met requirements.
- Enhanced the move stability of an azimuth motor by analyzing jitter suppression using absolute encoders for speed and position data.
- Drafted cable drawings for Quetzal hardware interconnect.
- Prepared rooms for projects by conducting inventory, equipment collection, and cleanup.
- Established and maintained a Bill of Materials to ensure precise inventory tracking.

Computer Programmer, PeARL Robotics May 2021 - August 2021

- Developed a program in Python producing a gridworld baseline for artificial intelligence; this environment contained obstacles and goals, serving as a testing platform for algorithms.
- Implemented learning algorithms guiding the agent to the goal by navigating obstacles.

ACADEMIC PROJECTS

Capstone Project: Tabletop Fine Motor Skills Board May 2023 - December 2023

- Designed, tested, and produced a tabletop board consisting of mechanisms providing auditory, visual, and tactile feedback to the user to compensate for a lack of sensory experiences.
- Utilized an Arduino and Raspberry Pi to interface different parts of the system: LCD screen, joystick, TFT Shield

The Electric Candle December 2022

- Created a circuit that can turn on an LED, and then turn it off when a user blows into a mic.
- Utilized an AC to DC converter, a battery back-up, an op-amp to amplify the mic's output, and a latching circuit to carry out the LED on/off function.

EXTRACURRICULAR & LEADERSHIP ACTIVITIES

Society of Physics Students September 2020 - Present

- Assisted peers with academic inquiries, fostering a collaborative learning environment in math and physics within the SPS community.

Riverhawk Robotics Club September 2021 - May 2023

- Contributed to the design, build, and testing of the control systems and power electronics.
- Enhanced battery efficiency by optimizing the balance, maximizing available capacity.

Boy Scouts of America Feb 2012 - May 2020

- Achieved Eagle Scout rank by orchestrating and leading a project to enhance forest trails and introduce a new trail in Wilmington Town Forest. This helped increase community attraction to hiking in that forest.
- Attained the roles of Troop Instructor, Bugler, and Patrol Leader, managing monthly meetings, weekly presentations, and trip responsibilities.