Ann Waye

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Education

Northeastern University Boston, MA

May 2022

Bachelor of Science in Computer Engineering with a Mathematics Minor

GPA: 3.664

Relevant Coursework: Electronic Design, Robotics, and Robotics Sensing & Navigation, Embedded Design,

Circuits & Signals, Fund. of Electronics, Fund. of Digital Design, Fund. of Engineering

Algorithms, Fund. of Networks, Complex Variables

Capstone Project: RFID Parking Detection system – automatic car detection using RFID tags to assist

drivers in locating available on-street parking

Skills

Electronics: Analog and digital circuit design, schematic capture and basic PCB layout, oscilloscopes, digital

multimeters, soldering, function generators, Raspberry Pi, Arduino

Programs: OrCAD Capture, OrCAD EDM, PSpice, C, C++, Java, Python, MATLAB, DipTrace, Oracle Agile

Engineering Experience

Amazon Robotics North Reading, MA

July – December 2021

Electrical Engineering Co-op

- Execute product designs from concept to production with interdisciplinary Hardware Development team
- Responsible for validating, testing, and certifying two complex circuit designs amidst board revisions
- Write and execute Design Verification Test plans for multiple controller PCBAs of a next-generation robot
- Lead the development of human-machine-interface (HMI) sub-assembly PCBs for preliminary robot build
- Pilot the design of future main electronics connector PCBA, interfacing with components and subassemblies for vehicle control and navigation, battery management, cameras, and HMI

Hefring Engineering Boston, MA

July - December 2020

Electrical Engineering Co-op

- Designed a large-scale dynamometer to test an underwater glider's variable-buoyancy engine with a "mission critical" deadline
- Wrote a high-level program for the motor-test system in Python to efficiently run a series of procedures
- Designed, populated, and tested analog signal conditioning PCB to interface with various sensors
- Developed microcontroller programming in C, implemented UART and ADC interface with interrupts

RKF Engineering Bethesda, MD

July - December 2019

Software Development and Testing Engineering Co-op

- Designed software solutions with senior developers, architects and optimization engineers for a satellite fleet planning and optimization application
- Thoroughly tested new, incremental software features, GUI components, and potential regressions
- Regularly presented the team's progress to the client for interactive feedback and modification discussion

Northeastern University ECE Department Boston, MA

September 2018 – May 2019

Translational Applications of Nanoscale Multiferroic Systems (TANMS) Undergraduate Researcher

- Accepted to the UCLA TANMS Research Program in the Advanced Materials and Microsystems Laboratory (AMML) with Professor Nian Sun and mentor Cunzheng Dong
- Designed a sensitive coil magnetometer system for very low frequency radio communication, consisting of custom modulator/demodulator, transceivers, PCB and electromagnetic sensors
- Engaged in the engineering research industry, studying electromagnetic approaches to the development of nanoscale systems in memory, antennas, and motors

<u>Additional Experience</u>

Northeastern University Undergraduate Admissions Boston, MA

Husky Ambassadors Student Leadership Council Operations Chair

Visitor Center Assistant / Student Presenter

September 2021 – May 2022

January 2020 - May 2022

Interests

Robotics, Electric cars, Space technology, Photography, Running, Lacrosse, Rescue dogs