Nathan Hunt

781.513.3065 | nathanhunt94709@gmail.com

http://www.linkedin.com/in/nathan-hunt-a6624a30b

EDUCATION

University of Massachusetts Amherst   Anticipated, 2027

Bachelor of Science in Computer Engineering

RELEVANT COURSEWORK

Advanced Programming (Python), Advanced Programming (C++), Analytical Tools for ECE, Computational Tools for ECE, Circuits & Electronics I, General Physics I & II, Intro to Digital & Computer Systems, Intro to Electrical & Computer Engineering, Security Engineering, Systems Programming, Hardware Organization & Digital Design

PROJECTS

Wrote Drives for BNO055 IMU on Raspberry Pi Pico

- Researched BNO055 architecture/register map and operating modes
- Converted raw sensor frames to SI units and managed calibration/offsets
- Set up CMake/Pico SDK; configured I²C/GPIO; added diagnostics, power-modes, and error handling

Created and Optimized a Text Editor

- Created and optimized a terminal text editor that reads raw keystrokes and maintains a live buffer
- Fast navigation and insert/delete via a linked-list core with $O(1)$ cursor-adjacent edits
- Built a header/API and modular .c/.h structure with boundary checks and robust error handling.

Built a linear regression model to predict house prices

- Implemented custom MSE loss, analytic gradient, and weight updates, and created visual plots.
- Trained and evaluated on separate data sets for training and test data.
- plotted learning curves to monitor convergence, and added error handling to keep long runs stable.

Worked with visual processing in C++

- Built a matrix-driven rendering that generates a dynamic image in real time
- Controlled Image change with x and y bounds

Photo Editing Software in Java

- Wrote an algorithm to traverse an image and edit based on parameters

EXPERIENCE

Power/Thermals Subteam Member – UMASS CubeSat Team   September 2025 - present

Team Member

- Writing firmware and developing a custom PCB for the Battery and Power Distribution Systems
- Coordinated with subsystem teams to assess power budgets and create the satellite PDU

UNH Electric Vehicle Organisation   September 2023 - December 2023

Team Member

- Diagnosed and repaired EV subsystems independently
- Collaborated with a team to convert gas vehicles to electric vehicles
- Worked with motors, wiring, gearing; used 3D modeling/printing; programmed remote controls

SKILLS

Programming: Python, C++, C, Java, JavaScript, ARMv8, HTML, CSS

Tools: KiCad,LTspice, Multisim, MATLAB, SolidWorks, AutoCAD, Excel, PowerPoint, Word

Hardware: PCB design, soldering; Arduino, Raspberry Pi, BeagleBone