

Nathaniel Morris

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Education

Bachelor of Science - Electrical Engineering and Computer Engineering, Expected 6/2027

Western Washington University

- GPA 3.7
- Electronics, AI/ML Focus
- Minor in Computer Systems and Math

Projects

Capstone Project: Autonomous Parking Enforcement – C, SDL 6/2026-Present

Western Washington University

- Goal: Producing a fully functional, autonomous robot that enforces parking through Image Recognition.
- Designing cross-platform software as well as OCR, Value Iteration, and wireless streaming.

EKG AI Cybersecurity Threat Detection – MATLAB, Machine Learning 2/2026-Present

Western Washington University

- Designing server-side and edge-side devices for the detection of anomalies in medical sensors.
- Developed test waveforms and verified pre-built models producing high accuracy results with basic tests.
- Presented preliminary findings in a school-wide event. Lead Professor: Shakil Mahmud

LoRa Antenna Cow Tracking – Arduino, ESP32, Solar Panels 2/2026-6/2026

Western Washington University

- Assembled LoRa Relay and Solar Panel PCBs with the goal of tracking cattle tags and developing formulas.
- Coded a microcontroller to interface with LoRa and Starlink systems through Ethernet, producing thousands of data points for more than 6 months running, used in the environmental department.

Miniature CNC Router – Fusion360, LinuxCNC, 3D Printing 1/2026-Present

Personal Project

- Using open-source 3D models, purchasing parts, 3D printing, and assembling a miniature CNC Router.
- Wiring and implementing power and control signals from desktop and breakout board. Results: On Hold.

AM Radio Receiver – KiCad, LTSpice, Op-Amps 9/2025-12/2025

Western Washington University

- Created and tuned AM Radio receiver, allowing for high fidelity 790 kHz receiving from 3 mi away.

Experience

Work-Planning Group Intern 6/2026-Present

ANR Group Inc – Subcontracted to Navarro-ATL

- Utilizing Microsoft AI Builder, and OfficeScript systems to design automated workflows lowering overhead by 37%
- Gaining experience in Ladder Logic Diagrams, Relay based Systems and Electrical and Mechanical AutoCAD.
- Calculating and reviewing documentation for gas meter antennas in a high security environment.
- Developing engineering drawings showing real-time changes in a high safety facility, while using NFPA (2023).

Physics Tutor Lead 9/2024-Present

Western Washington University

- Tutoring Math, Physics, Circuit Analysis and various Electrical Engineering concepts for three years running
- Interviewing prospective tutors, providing reviewed content and acting as a liaison between professors and tutors.

Skills

Software: Fusion 360, LTSpice, RTOS, MATLAB, Microsoft Office, KiCad, GitHub, gdb, MCUxpresso

Hardware: Microcontrollers, STM32, 3D Printing, PCB Assembly, RaspberryPi, NXP Boards

Programming Language: C, Java, Python, ARM-Assembly, System Verilog, Matlab, JavaScript

Lab Equipment: Soldering, Spot Welding, VNA, FPGA, Spectrum Analyzer, CNC Mill, Chopsaw