CHARLES NORTON

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EDUCATION

Grand Valley State University - *Grand Rapids, MI*

Master of Science in Engineering (M.S.E.) — Expected Aug 2027
Emphasis in Electrical and Computer Engineering

Bachelor of Science in Electrical Engineering (B.S.E.) — Expected Aug 2027

SKILLS

Programming	Python (NumPy, SciPy, Matplotlib, SymPy), C, MATLAB, Julia
Embedded & PCB	ARM Cortex-M microcontrollers (STM32), Altium Designer, soldering
Controls	Allen-Bradley PLC and HMI programming
CAD & Fabrication	SolidWorks, Fusion 360, 3D printing, mill and lathe operation
Operating Systems	Linux/Unix command line

WORK EXPERIENCE

Koops Automation Systems - *Holland, MI* — **May 2024 – Dec 2025**

Engineering Co-op — Controls Design Engineering — Aug 2025 – Dec 2025

- Designed electrical schematics and controls documentation for automation systems
- Independently designed controls for a medical drill test box
- Developed controls for one section of a PCB assembly machine from design through release

Engineering Co-op — Project Engineering — Jan 2025 – Apr 2025

- Modified and debugged an artillery shell manufacturing system
- Authored machine interface documentation
- Prototyped a car seat bagging system, supporting customer interest in automation

Engineering Co-op — Controls Engineering — May 2024 – Aug 2024

- Programmed Allen-Bradley PLCs and HMIs for a tractor seat manufacturing system
- Developed three-station conveyor logic with integrated data tracking
- Supported testing, troubleshooting, and commissioning

The B.O.B. - *Grand Rapids, MI* — Jan 2020 – Dec 2021

Hospitality and Safety Manager

- Managed a team of 25+ and enforced fire safety requirements
- Maintained asset, incident, and employee review records

MILITARY EXPERIENCE

United States Marine Corps - *Camp Lejeune, NC* — Jun 2013 – Apr 2017

Embarkation Logistics Chief

- Trained in automated asset tracking, load planning, and deployment systems
- Directed a 500-person railhead operation during urgent movement operations

HIGHLIGHTED PROJECTS

Line Following Robot: Autonomous robot that follows a marked path
Karaoke Machine: Audio system with adjustable gain, Bluetooth, and auxiliary input
Digital Monster Pet: Interactive embedded system simulating a digital pet
Skeeball Trivia Game: Skeeball game integrated with trivia gameplay