

Cassia A. Robert

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Erie, PA 16510

Education:

Penn State Behrend, Erie, PA

Bachelor of Science in Electrical and Computer Engineering Technology

Graduation: May 2025

GPA 3.05

Significant Coursework:

Solar Energy Conversion Systems; Professional Web Design; Businesses Management; German level 3;
DC/AC Circuits Analysis; Intro to PLC with Ladder Logic programming; AutoCAD Basics; MyDAQ LabView and
MathScript; Programming with Python, C, Arduino IDE, and Colab; Wireless Communications with PSoC

Lehigh Carbon Community College, Schnecksville, PA

August 2019 - July 2021

40+ Credit Hours towards Associate of Science in Computer Information Systems

Academic and Independent Projects:

Wireless Sensor Network using XBee RF Modules; Penn State Behrend

Spring 2024

- Configured two wireless XBee RF modules to read voltage from an LM35
- Implemented data transmission via infrared LEDs integrated within a PSoC microcontroller circuit
- Designed a LabView program to convert and display real-time temperature data

Rotary Encoder; Penn State Behrend

Spring 2024

- Programmed a pic18f2025 microcontroller to interface with a rotary encoder and an LCD screen
- Utilized MPLab PICkit4 to program and debug the microcontroller
- Designed the functionality of the rotary encoder to increment or decrement the displayed numbers on the LCD screen

Elevator System with HMI Control Screen; Penn State Behrend

Fall 2023

- Designed a three-floor miniature elevator system with a Micro850 PLC module and HMI display screens
- Integrated photosensors, an emergency off switch, and manual/automatic modes for precise floor detection and control
- Developed and programmed using ladder logic within Connected Components Workbench (CCW)

Traffic Light Control System; Penn State Behrend

Fall 2023

- Designed a four-way traffic control system using a Micro850 PLC module and a collection of colored LEDs
- Configured with both a traditional four-way traffic routine and an emergency vehicle mode
- Developed and programmed using ladder logic within Connected Components Workbench (CCW)

Arduino Uno Smart Car; Penn State Behrend

Spring 2023

- Designed projects including ultrasonic sensors to avoid obstacles and photosensors for line detection and following
- Implemented a remote interface for manual system control
- Developed and Programmed using Arduino IDE and mapped subroutine logic in MS Visio

Magic Mirror; Independent Project

Summer 2020

- Integrated a Raspberry Pi B3 with multiple open-source modules and hardware components
- Incorporated features including an analog clock, weekly weather forecasts, daily to-do lists, Google email
- Enabled voice control via Amazon Alexa and manual control through phone applications
- Designed an interactive digital dashboard within a one-way mirror's reflection

Work Experience

Prepared Foods, Wegmans, Erie PA

August 2022 - Present

- Maintained clean work environment in compliance with OSHA guidelines for food, chemical, and machine safety
- Communicated with other departments and upper management to ensure high levels of customer satisfaction

Cashier, Customer Service, Lowes, Whitehall, PA

November 2019 - August 2021

- Resolved customer merchandise questions and concerns by working directly with team members and distribution sites, and escalating complex problems to appropriate management for proper resolutions

Skills and Languages

- Languages: English (Native), German (Elementary; Intermediate In Progress)
- Programming and Development: HTML, CSS, JavaScript, C++, C#, C, SQL, Python,
- Tools & Software: Arduino IDE, Connected Components Workbench (CCW), PLC, Labview, AutoCAD (Basics)
- Project Management and Microsoft: MS Project, MS Visio, Microsoft Word, Excel, PowerPoint