

# Garrett Phillips

[gwphilli@purdue.edu](mailto:gwphilli@purdue.edu)

[in/garrett-w-phillips](mailto:in/garrett-w-phillips)

[garrettwphillips.com](http://garrettwphillips.com)

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## PERSONAL STATEMENT

Utilize leadership, interpersonal, and communication skills to gain valuable technical and professional work experience through software-oriented problem-solving opportunities.

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## EDUCATION

**Purdue University, West Lafayette, IN**

**Expected Graduation - December 2024**

- **GPA: 3.79** - Major GPA: 3.93
- Senior pursuing **Bachelor of Science in Computer Engineering**.
- Achieved Semester Honors and Dean's List every semester.

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## WORK EXPERIENCE

**Electrical and Computer Engineering Intern**

**Delta ModTech, Ramsey, MN**

**May 2022 - August 2022**

- Assembled mechanical and electrical components of a highly complex, \$1,000,000 laser die-cutting system per customer requirements through effective communication and collaboration with engineers, technicians, and professional writing personnel.
- Tested functionality of product through PLC programming and troubleshoot unexpected results to achieve a 99% functionality rating.
- Integrated a prototype sub-assembly, including creation and documentation of electrical schematics, into an established laser die-cutting system to decrease the error margin of the laser head during operation at high material speeds.
- Navigated a fast-paced and intimate work setting with a collaborative attitude.

**Peer Success Coach**

**Purdue University, Academic Success Center**

**August 2023 - Present**

- Provide undergraduate students an opportunity to meet one-on-one as they navigate the college environment and learn to succeed academically, socially, and personally.
- Assist students with time management skills, exploring career options, and connecting with campus resources and academic advisors.

**Soccer Referee**

**Minnesota Youth Soccer Association, Minneapolis, MN**

**May 2015 - August 2021**

- Refereed recreational, competitive, and select soccer clubs in the Minneapolis district of male and female athletes, ages 8-19.
- Enforced rules, structure, and order in high-stress situations and maintained professionalism when engaging with coaches and players.
- Recollection of both MYSA standard and tournament-specific game regulations and protocols during 90-minute match duration.

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## COURSEWORK

**ECE 39595 - Object-Oriented Programming with C++**

**Fall 2023**

Distinct applications of **classes, inheritance, polymorphism, memory allocation, exception handling, object construction and destruction**, and the Standard Template Library (STL) to create distinct solutions for real-world problems.

**ECE 36200 - Microprocessor Systems and Interfacing**

**Fall 2023**

Introduction to computer instruction sets, assembly language programming, organization, and interfacing.

**ECE 36800 - Data Structures and Algorithms in C**

**Spring 2023**

Unique implementations of **trees, stacks, graphs, linked-lists, sorting and hashing algorithms**, as well as various other structures and algorithms to solve complex, time-intensive problems.

**ECE 20875 - Python for Data Science**

**Spring 2023**

Researched built in Python functions and imports to explore optimized solutions to problems using Natural Language Processing (NLP), K-Nearest Neighbor (KNN), Multilayer Perceptron neural networks (MLP), Matplotlib, NumPy, and Scikit-learn.

**ECE 26400 - Advanced C Programming**

**Fall 2022**

Completion of projects by breaking down assignments into quantifiable tasks. Final project: Huffman Coding file compression algorithm.

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## PERSONAL PROJECTS

**Raspberry Pi Wi-Fi Proxy Filter**

**June 2023**

Through utilization of a Raspberry Pi Zero W, I was able to configure an advanced software solution designed to function as a network-wide ad block. I successfully established a Wi-Fi proxy filter that effectively blocks ad requests and queries across websites, apps, streaming services, etc. without the need for additional local software.

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## TECHNICAL SKILLS

C/C++, Python, OOP, Git, Large Data Analysis, HTML/CSS, SQLite, Microsoft Excel/Office, Visual Studio, Verilog, MATLAB