

Garrett Phillips

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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.

EDUCATION

Purdue University, West Lafayette, IN

Expected Graduation - December 2024

- **GPA: 3.80** - Major GPA: 3.92
- Senior pursuing **Bachelor of Science in Computer Engineering**.
- Achieved Semester Honors and Dean's List in 4 consecutive semesters.

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.

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.

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.

INVOLVEMENT

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.

Undergraduate Teaching Assistant - ECE 20875

Purdue University, Elmore Family School of Electrical and Computer Engineering

August 2023 - Present

- Support students in creating and optimizing problem-solving approaches to data science problems by utilizing python and exploring python functions, imports, data visualization tools like **Matplotlib**, and practical applications of libraries like **NumPy** and **Scikit-learn**.

TECHNICAL SKILLS

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