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

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 troubleshot 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 playtime duration.

COURSEWORK

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

Microprocessor Systems and Interfacing **ECE 36200 - Fall 2023**

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

Data Structures and Algorithms in C **ECE 36800 - 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-intense problems.

Python for Data Science **ECE 20875 - 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**.

Advanced C Programming **ECE 26400 - Fall 2022**

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

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.

TECHNICAL SKILLS

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