George Perry

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EDUCATION

University of Notre Dame, Notre Dame, IN   **May 2024**
Bachelor of Science, Computer Science | Minor in Bioengineering | GPA: 3.71

St. Xavier High School, Cincinnati, OH | GPA: 4.0 | ACT: 36   **May 2020**

SKILLS AND INTERETS

Technical: Python, C, C++, C#, JavaScript, Linux/Unix, Git, Arduino, Verilog, MATLAB, Microsoft Products
Activities & Awards: Club Water Polo, Notre Dame Club of Cincinnati Scholarship, National Honors Society
Interests: Swimming, League of Legends, AI & Biotechnology, Latin, Alternative/Indie Music, Volunteering/Service Work

EXPERIENCE AND PROFESSIONAL DEVELOPMENT

University of Notre Dame – Security and Software Engineering Lab Research Assistant   **August 2022 – Present**
- Assisted in finding ways to represent code for machine learning based vulnerability detection, with a goal to see which representation (e.g., AST, token, graph) or combinations of representations perform best

University of Notre Dame - CS4GOOD Project Team Leader   **January 2022 - Present**
- Coordinated development of a reliable and maintainable website for the non-profit Motels4Now which provides housing for homeless people in the South Bend area
  - Used Google Sites collaboratively to improve the visual and functional elements of the website
  - Responsible for training, assigning tasks, and regularly scheduling meetings with 5 teammates

London Computer Systems (Rent Manager) – API Software Development Intern   **May 2022 – August 2022**
- Assisted in developing custom projects for company clients through using C# API development tools
  - Developed a project for a real estate agency – given a property address and date, gather corresponding tenant data from API (email, name, etc.) and send emails notifying of an upcoming house inspection
  - Wrote PowerShell script to migrate codebase from Perforce to Git, also migrated from .NET Framework to Core
  - Gained a deeper understanding of the software development process, data analytics, and web-interface interactions

PROJECTS

Personal Project   **Summer 2022**
- Movie Recommender Website: movie-recommendations-site.herokuapp.com/
- Created a Python web application that uses machine learning to recommend movies based off user inputted criteria
  - Developed a web scraper using Pandas and Beautiful Soup to save data from IMDb into a CSV file, then used Scikit-learn to transform the data into similarity scores which are used to output similar movies

Personal Project   **Summer 2022**
- Portfolio Website - george-perry.github.io/portfolio-website/
- Created a website to display work/project experience, skills, and more
  - Used HTML and CSS elements to create a flowing and easy to read design

Data Structures, University of Notre Dame   **Spring 2022**
- Final Project – DNA Storing/Searching: Collaborated with a group to create a program which allows its users to search for a specific mutation, pattern, or genetic disorder within specific DNA strands
- Used C++ to implement efficient data structures/algorithms, and used Github for collaborative version control support
  - Utilized a bitset to store DNA bases for efficient memory use, used the Boyer-Moore algorithm for pattern matching