

# George Perry

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## EDUCATION

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**University of Notre Dame, Notre Dame, IN**

*Bachelor of Science, Computer Science | Minor in Bioengineering*

**May 2024**

*GPA: 3.71*

## EXPERIENCE & PROFESSIONAL DEVELOPMENT

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**Security and Software Engineering Lab, Notre Dame, IN**

**August 2022 – Present**

*Research Assistant*

- Investigated ways to represent source code for machine learning-based vulnerability detection by analyzing learning-based publications and language-specific detection tools to form an idea of which representations perform best
- Modified NL2Type, a learning-based approach for predicting likely type signatures of JavaScript functions, to work with Python files

**CS4Good, Notre Dame, IN**

**January 2022 – Present**

*Project Team Leader*

- Coordinated development of a well-designed and user-friendly website for the non-profit Motels4Now which provides housing for homeless people in the South Bend area
- Improved the visual and functional elements of the website using HTML/CSS collaboratively
- Trained 5 teammates on front-end development technologies, assigned tasks, and regularly scheduled meetings

**London Computer Systems (Rent Manager), Cincinnati, OH**

**May 2022 – August 2022**

*Software Development Intern*

- Developed custom projects for company clients by using C# and RESTful API development tools
- Created a project for a real estate agency – given a property address and date, gather corresponding tenant data from API (email, name, etc.), and automated sending 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

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**Movie Recommender Website:** [movie-recommendations.streamlit.app](https://movie-recommendations.streamlit.app)

**August 2022**

- Created a Python web application that uses machine learning to recommend movies based off user inputted criteria
- Transformed movie keywords into similarity scores with natural language processing and displayed similar movies by using Pandas and Beautiful Soup to scrape movie data from IMDb into a CSV file, Scikit-learn to run the NLP and similarity models, and Streamlit for front-end development and hosting

**Portfolio Website:** [george-perry.github.io/portfolio-website/](https://george-perry.github.io/portfolio-website/)

**June 2022**

- Built a website from scratch to display work/project experience, skills, and more
- Used HTML and CSS elements and JavaScript to create a flowing and easy-to-read design

**Data Structures Final Project – DNA Storing/Searching**

**April 2022**

- Developed a program with a group that allows its users to search for a specific mutation, pattern, or genetic disorder within specific DNA strands
- Implemented efficient data structures/algorithms using C++, 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

## TECHNICAL SKILLS

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*Languages:* Python, C, C++, C#, JavaScript, SQL

*Technologies/Tools:* HTML, CSS, Angular, .NET, Django, Pandas, BS4, Linux/Unix, Git, Perforce, Arduino, MATLAB, Microsoft Products