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## Education

**University Of Maryland, College Park** — **College Park, MD**
*Undergraduate Student of Computer Science* — *Aug. 2022 - Present (Graduating in May 2026)*

**Ardrey Kell High School** — **Charlotte, NC**
*High School Student* — *Aug. 2018 - June 2022*

## Experience

**Huntington Ingalls Industries - Mission Technologies Division** — **Hanover, MD**
*Summer Intern* — *June 2024 - Aug 2024*

- Contributed to the development of Minotaur, a specialized platform integrating sensors, cameras, radar, and communication equipment into a unified system for Air and Marine Operations.
- Enhanced software functionality of Minotaur by implementing validation checks, such as ensuring user inputs do not exceed critical thresholds, significantly improving system stability and user experience.
- Expanded Minotaur's capabilities by designing and integrating a new function to filter signals based on specific properties, addressing critical gaps in signal processing functionalities.
- Collaborated effectively with a team to review code and ensure compliance with industry standards and project specifications, leveraging tools like Jira for efficient task management and timely delivery of software updates.
- Applied expertise in parsing and analyzing system performance data using atop to optimize software performance and troubleshoot operational issues effectively.

**Qure.AI** — **Charlotte, NC**
*Summer Intern* — *May 2021 - Aug 2021*

- Studied convolutional neural networks, AI image recognition, and open-source machine learning architectures to build an AI-based image recognition program to detect medical abnormalities, such as the impact of COVID-19 on the lungs, captured in x-ray and MRI images, as well as size, location and growth rates of brain tumors
- Gathered, arranged, and corrected research data of over 30,000 x-ray and MRI images, to create representative graphs and charts highlighting results for presentations
- Implemented advanced Machine Learning concepts such as back-propagation and rectified linear activation functions, which both increase the accuracy and efficiency of the AI model, thereby achieving a 98% detection accuracy rate for the final model.
- Implemented an interactive UI for medical professionals to input multiple images at a time and quickly get results

## Projects

**Atop Log Parser and Visualizer** — **June 2024**

- Developed a C++ program to parse, analyze, and interpret mission log files for CPU and RAM performance data, then utilized d3.js, a JavaScript visualization library, to create interactive charts and graphs for visualizing this information on a dynamic frontend built with HTML, CSS, and JavaScript.

**Text File Analyzer in C** — **Sep 2023**

- Created an efficient and versatile text analysis tool in C, enhancing readability and compliance with formatting standards. This program provides key insights, including calculating the total number of lines in the file, identifying lines exceeding 80 characters and marking them with an 'X', and offering a comprehensive summary of file statistics.

**Online Test Manager** — **April 2023**

- Implemented a data manager program in Java of a theoretical online test system, which allows for the definition of exams with multiple different types of questions. This program also grades these exams and generates statistical information about student averages and standard deviation.

## Technical Skills

**Languages**: Java, Python, C, C++, JavaScript, TypeScript, HTML, CSS
**Developer Tools**: GitHub, Google Cloud, Firebase, ClearCase, Jira
**Technologies/Frameworks**: PyTorch, Numpy, Jupyter Notebook, UNIX/Linux, React JS

## Soft Skills

- A dedicated and receptive team player, committed to providing professional support and problem solving skills
- A clear visual communicator with the ability to create interactive content for diverse audiences
- Passionate about technology, software, and figuring out how things work