MICHAEL CHUN

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Education

University of Maryland — **College Park, Maryland**
Bachelors of Science in Computer Science — *January 2023 - Expected May 2025*

Binghamton University, State University of New York — **Binghamton, New York**
September 2021 - September 2022

Skills

Coding Skills	Java, Python, JavaScript, HTML/CSS, Ruby, NumPy, Xarray
Relevant Coursework	Object Oriented Programming, Data Structures
Technical Skills	Adobe Premiere Pro, Adobe After Effects, Davinci Resolve

Experience

Research Intern — **University of Maryland**
Human-Data Interaction Research Group — *June 2023 - Present*

- Designed an advanced tool leveraging JavaScript, CSS, and HTML to automate the annotation process for SVG files
- Used GitHub to maintain a centralized codebase, facilitate seamless collaboration, and track project progress
- Participated in code reviews and provided constructive feedback to peers

Student Researcher — **Binghamton University**
First Year Immersion Program: Environmental Visualizations — *September 2021 - July 2022*

- Improved the efficiency of **harmful algal bloom detection** by showcasing a **25%** increase in **detection efficiency** of **drone-based hyperspectral imaging** over satellite imaging
- Facilitated a research trip to **Lake Erie** to gathering insights on the effects of harmful algal blooms in the community and identified **three** optimal study locations streamlining **data collections processes**
- Delivered a presentation at the annual **FRI Proposal Poster Research Session** to captivate esteemed **researchers** and **philanthropists** associated with the FRI program.

Researcher Intern — **Stony Brook University**
School of Atmospheric and Marine Sciences — *May 2020 - December 2020*

- Obtained **NASA EarthData** to analyze the effects of climate change on Hurricane Sally's precipitation, generating 2D visualizations comparing over **100+ IMERG** and **CAM5** files.
- Utilized data I/O packages, **PyNIO and PyNGL** for extracting and plotting data from **netCDF3** files, using a multidimensional array module
- Leveraged **Xarray** and **numPy** to enable spatial and temporal mappings and enable labels on arrays that revealed a **61.5%** increase in precipitation.

Projects

Snake — **University of Maryland**
January 2023 - April 2023

- Developed a classic Snake game using JavaScript, HTML, and CSS, showcasing strong programming skills and creativity
- Created a novel gameplay mechanic by introducing power-ups in the form of speed boosts, extra points, etc.
- Documented the game's architecture, including the implementation details of the power-up system, enabling seamless knowledge transfer and future maintenance