MICHAEL CHUN

Stony Brook, NY | mchun228@gmail.com | https://mchun228.github.io/ | linkedin.com/in/mchun228

Education

University of Maryland — **College Park, Maryland**
Major in Computer Science — *January 2023 - Present*

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 a tool leveraging **JavaScript (D3.js + Node.js), CSS, and HTML** to streamline the annotation process for **chart corpora** in **SVG** elements, enabling efficient **data visualization automation**
- Examined **56** chart corpora used for **automated chart analysis** and extracted data on format, scope, collection method, annotations, and diversity to summarize patterns
- Used **Node.js** in **back-end development** to **export** specific annotation variables and **reload** them
- Utilized **GitHub** to maintain a centralized repository, merge code changes, and participate in **code reviews** with the team

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 esteemed **researchers** and **philanthropists** associated with the FRI program

Research 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 — **College Park, MD**
January 2023 - April 2023

- Developed an interactive classic Snake game using **JavaScript**, **HTML**, and **CSS** showcasing proficiency in **front-end web development**