

MICHAEL CHUN

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Education

University of Maryland

Major in Computer Science

Binghamton University, State University of New York

College Park, Maryland

January 2023 - Present

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

Human-Data Interaction Research Group

University of Maryland

June 2023 - Present

- Designed a tool leveraging **JavaScript (D3.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
- Utilized **GitHub** to maintain a centralized repository, merge code changes, and participate in **code reviews** with the team

Student Researcher

First Year Immersion Program: Environmental Visualizations

Binghamton University

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

School of Atmospheric and Marine Sciences

Stony Brook University

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**