Michael Chun

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Education

University of Maryland, College Park College Park, MD

Bachelor of Science in Computer Science, Minor in General Business *Expected May 2026*

Relevant Coursework: Computer Systems, Data Structures and Algorithms, Data Science, Statistics, Organization of Programming Languages, OOP, Discrete Math, Linear Algebra

Leadership: Founded the UMD Unmanned Aerial Systems Club

Experience

Software Engineer June 2024 – August 2024

G2i *Stony Brook, NY*

- Integrated RLHF methodologies into Outlier AI models to enhance their performance
- Conducted thorough testing and evaluation of Outlier AI models using key metrics to ensure quality responses

Software Engineer Research Intern May 2023 – August 2023

University of Maryland *College Park, MD*

- Developed tools using **Python**, **JavaScript**, **CSS**, and **HTML** focusing on SVG element manipulation
- Worked on a **JavaScript** tool to analyze **100+** chart files to summarize key patterns and trends
- Built a custom HTTP back-end server with **Python**, capable of serving files, handling GET requests, and processing POST requests for storing JSON data. This functionality allowed users to save and reload SVG annotations in their home directory

Geophysical Student Researcher Sep. 2021 – July 2022

Environmental Visualizations Research Stream *Binghamton, NY*

- Led a team that enhanced harmful algal bloom detection efficiency by **25%** using **MagMap2000** and **ThermoMeter** for drone-based hyper spectral imaging, outperforming traditional satellite methods
- Organized logistics for 3 research expeditions to Lake Erie, identifying optimal study locations

Data Analytics Research Intern May 2020 – Dec. 2020

SoMAS, Stony Brook University *Stony Brook, NY*

- Spearheaded initiative of prediction models for Hurricane Sally's precipitation changes from climate change using **Python**, resulting in **100+** detailed 2D visualizations that compared IMERG and CAM5 data
- Designed data extraction and plotting by utilizing **PyNIO** and **PyNGL** to handle multidimensional array modules from **NASA EarthData**
- Produced spatial and temporal mapping of climate data by leveraging **Xarray** and **NumPy**, which revealed a **61.5%** increase in precipitation due to climate change

Projects

MiniCaml | *OCaml*

- Created a dynamically typed version of OCaml, MiniCaml, by implementing an interpreter
- Tokenized input strings by engineering lexer, parser, and evaluator functions to produce abstract syntax trees
- Developed a version of utop to enhance interactive shell capabilities for MiniCaml by extending parsing functions to top-level directives

Analytic Tracking App | *JavaScript (Vue.js, Express.js, Node.js), HTML/CSS*

- Developed a web application for tracking player statistics across different gaming platforms by extracting data from an external API
- Implemented a Vue Router using **Vue.js** to create a dynamic web application that updates the interface based on user interaction and send notifications using Vue-toasted
- Utilized **Express.js** to optimize back-end routing and middle ware, improving server response times by **18%**

Technical Skills

Languages: Java, Python, JavaScript, Typescript, C, MIPS Assembly, OCaml, Rust, HTML/CSS, MATLAB
Frameworks: React, Node.js, Vue.js, Express.js
Libraries: Xarray, NumPy, pathlib