Dylan Tom

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Education

Cornell University, Ithaca, NY — Expected May 2025
GPA 3.9 | B.A. in Computer Science and Mathematics
Relevant Courses: Data Structures & Algorithms, Functional Programming, Object Oriented Programming, Discrete Structures, Computer Organization & Logic, Embedded Systems, Linear Algebra, Multivariable Calculus, Probability

The Bronx High School of Science, Bronx, NY — June 2021
GPA 4.0 | Advanced Regents Diploma w/ Honors

Experience

Data Structures and Object-Oriented Programming, Cornell University — January 2023 – Present
Teaching Assistant

- Course staff for a class of 700+ students and assisted in weekly discussion sections
- Facilitated grading of assignments and exams, moderated discussion boards, and held weekly office hours

Hack4Impact, Cornell University
Data Analyst, Environmental Data Governance Initiative — August 2022 – January 2023

- Generated environmental report cards to identify congressional districts in the US neglected by the EPA
- Refactored 10+ existing **Python** and **R** scripts to automate future ingested data

Full Stack Developer, Farmworker Justice — February 2022 – May 2022

- Created an interactive visualization dashboard that centralizes farmworker data from public sources using **MERN**
- Implemented preprocessing, connecting the backend to **MongoDB** for future automation of datasets
- Utilized **D3.js** to generate dynamic visualizations

Cosgrove Lab, Cornell University — January 2022 – Present
Undergraduate Researcher, under guidance of David McKellar, PhD candidate

- Demoed a novel web tool (see Pediatric Skeletal Muscle Cell Atlas) to a multi-institutional consortium
- Utilized open-source pipelines in **Python** to analyze performance of batch data integration and dimensionality reduction methods regarding human muscle stem cell research

Projects

Pediatric Skeletal Muscle Cell Atlas — July 2022 – Present

- Improved resource efficiency of the existing scMuscle web tool using **ElasticSearch** and performing on-demand querying through **GraphQL**
- Created interactive visualizations and user interface using Python-based **Dash** and **Plotly**

OCaml x Expedia — August 2022 – December 2022

- Built a terminal-based application in **OCaml** that centralizes bus prices for students at Cornell University
- Followed an agile software methodology to build a 1,500+ line system with a team of 3 developers

Reservations Required — April 2022 – August 2022

- Developed a scalable reservation management system API and a responsive web app using **Firebase**, **Express.js**, **React**, and **Node.js** to streamline student experience while reserving rooms at Cornell University
- As product lead, guided a team of 7 developers and a designer through the standard production cycle

Technical Skills

Programming and Markup Languages: JavaScript, Python, Java, OCaml, LaTeX, HTML, CSS (Tailwind)
Libraries: [JS] React, Typescript, Express, Node, MaterialUI, D3; [Python] Pandas, Dash, NumPy, Matplotlib, ScanPy
Tools and Software: Git, Firebase, AWS, Jupyter, Postman, ElasticSearch, GraphQL, MongoDB, Vite