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: Functional Programming, Object Oriented Programming, Data Structures, Discrete Structures, Computer Organization & Logic, Linear Algebra, Multivariable Calculus, Backend Development

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

Experience

Hack4Impact, Cornell University — August 2022 – Present
Full Stack Developer, Environmental Data Governance Initiative

- Generated environmental report cards to identify regions in the US neglected by the EPA
- Refactored existing code to analyze future ingested data

Hack4Impact, Cornell University — February 2022 – May 2022
Full Stack Developer, Farmworker Justice

- Created an interactive visualization dashboard that centralizes farmworker data from public sources
- Implemented preprocessing, connecting backend to MongoDB for future automation of newer datasets
- Utilized D3 to create dynamic visualizations including maps and line graphs
- Worked in sub teams of 6 developers using MERN stack where clear documentation was emphasized

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

- Demoed a working web tool to a multi-institutional consortium
- Utilized open-source pipelines to analyze performance of batch data integration and dimensionality reduction methods regarding human muscle stem cell research

Projects

Skeletal Muscle Cell Atlas — July 2022 – Present
Full Stack Developer

- 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

Reservations Required — April 2022 – August 2022
Technical Lead & System Designer

- Developed a scalable reservation management system API and a responsive web app using the FERN stack to streamline student experience while reserving rooms at Cornell
- Guided a team of 7 developers and a designer through the standard production cycle

Cars 4: Not a Pixar Movie — October 2021 – December 2021
Data Analyst

- Preprocessed data and created visualizations on an open-source dataset with 400K+ instances and 20+ features
- Trained linear regression and K-neural network models to predict prices and manufacturers of used cars

Technical Skills

Programming and Markup Languages: JavaScript, Python, OCaml, Java, LaTeX, HTML, CSS
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