

Dylan Tom

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Education

Cornell University, Ithaca, NY, Expected May 2025

GPA 3.9 | B.A. in Computer Science and Mathematics | Minor in Business

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

The Bronx High School of Science, Bronx, NY, Graduated June 2021

GPA 4.0 | Advanced Regents Diploma w/ Honors

Experience

Hack4Impact, Cornell University

February 2022 – Present

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

- Utilized open-source pipelines to analyze performance of batch data integration and dimensionality reduction methods regarding human muscle stem cell research
- Gained experience with command line operations and modern bioinformatic analysis techniques

Lek Lab, Yale University

February 2019 – June 2021

Research Assistant, under guidance of Dr. Monkol Lek

- Interpreted loss of function genes from nonsense mutations and analysis of protein domains to assess current pathogenicity assessments
- Developed an artificial intelligence agent using a greedy heuristic algorithm in C# for Hearthstone

Projects

Skeletal Muscle Cell Atlas, [https://github.com/leklab/czi_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, [<https://github.com/Reservations-Required/reserve-web>]

April 2022 – Present

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, [<https://github.com/DylanTom/info-final-project>]

October 2021 – December 2021

- 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, Java, LaTeX, OCaml, HTML, CSS, Julia, R, C#

Libraries: [JS] React, Typescript, Express, Node, MaterialUI, D3; [Python] Pandas, Dash, NumPy, Matplotlib, ScanPy

Tools and Software: Git, Firebase, Jupyter, Postman, Elasticsearch, GraphQL, MongoDB