

# CHARLIE THARAS

Class of 2027, Williams College

Computer Science & Math, Concentration in Cognitive Science (Expected)

Email for phone #

charlie@charliemax.dev

github.com/charlietharas

English (primary)

German (professional working)

Spanish (limited working)

## ABOUT ME

Rising sophomore at Williams College (3.86 GPA) seeking summer internships and research opportunities in data science and software engineering. Particularly interested in sociological and urban research, with an emphasis on the interdisciplinary study of urban dynamics through machine learning models, NLP-driven language analysis, critical theory, and human geography.

Relevant coursework: Computer Organization, Data Structures & Advanced Programming, Discrete Math, Multivariate Calculus, Cities Suburbs & Rural Places, Intro to Cognitive Science, Cognitive Psychology

### Experience With

Python

Java

C/C++

Go

REST API Design

GNU Octave

PostgreSQL

Git

Docker

Anaconda/Pip

TensorFlow

PyTorch

Pandas

Matplotlib

OpenCV

### Certificates

Coursera (Stanford, DeepLearning.AI)

- Machine Learning
- Neural Networks and Deep Learning
- Improving Deep Neural Networks
- Structuring Machine Learning Projects

## WORK AND VOLUNTEER EXPERIENCE



### Transportation Researcher, Williams Center for Learning in Action

June 2024 - Present

- Designing carpool web application under mentorship of a transportation demand management coordinator
- Developing ride-matching algorithm, backend database, user interface, and REST API
- Conducting research into microtransit solutions for rural areas such as the Berkshires



### Student Developer, Williams Students Online

January 2024 - Present

- Working with student mentors on front and back end of Williams College student website
- Implemented account synchronization, catalog integration, and feature flags for course scheduler



### Data Engineering and Bioinformatics Intern, Memorial Sloan Kettering MIND

June 2022 - August 2022

- Improved unsupervised learning models for cancer cell detection with data engineers at the Luna open-source histology project (github.com/msk-mind/luna), developed new feature preprocessing steps for megakaryocytes
- Created lightweight histology slide viewer and annotation tool to streamline pathologist workflow for training pipeline



### Various Roles, Steel City Codes (Executive Team)

November 2020 - August 2023

- Led operations serving 2,000+ annual students nationwide, managed organizational partnerships, conducted volunteer interviews, contacted school administrators, and oversaw regional recruiting, staffing, and expansion
- Organized international hackathons (\$15K+ in sponsorships/donations, "Steel City Hacks" on Devpost), personally developed equitable STEM curricula, rolled out new workshops in collaboration with corporate donors

## CLUBS AND ORGANIZATIONS

### Member, Williams Undergraduate Research Journal

Discuss scientific papers and possible research areas with peers, 2023-

### President, Computer Science Consortium

Planned & taught high school computer science lessons, 2021-2023

### Teaching Intern, Science Research Seminar & CS9

Developed curricula, assisted with class, gave lessons, graded homework, 2022-2023

### Writer, BITS Magazine

Wrote articles for high school's annual computer science magazine, 2021-2023

## HONORS AND AWARDS

### Spring 2024 Class of '60s Scholar

Awarded to high-achieving and passionate computer science students.

### 2024 Ward Prize Nominee

For creating a compelling student project (CitySim, CSCI 136).

### 2023 High School Comp. Sci. Award

Awarded to exemplary computer science students.

### 2023 Sheila Glickstein Hackner Award

For dedication in the service of education for others, 600+ service hours.