

Michael Sheng

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 <https://github.com/crystalline>

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Education

Georgia Institute of Technology

Currently Enrolled, B.S., Computer Science
Aug 2024 – Jun 2027 (Anticipated)

Eastlake High School

High School Diploma
Aug 2020 – Jun 2024
GPA: 3.98 / 4.00

Experience & Projects

Student Researcher

Los Alamos National Laboratory

Jun 2023 – Oct 2023

- + Assisted Li Tang of Los Alamos on vectorization of tensor-related operations in the Polybench benchmark suite and other algorithms using PyTorch and Numpy.
- + Achieved speed increases of up to 40x for algorithms such as BFS and Cholesky decomposition compared to non-vectorized traditional implementations

Lead Python Instructor

TechnoSmartKids LLC

Oct 2022 – Jan 2024

- + Led after-school lessons at local elementary schools for introductory and intermediate Python
- + Taught in local summer computing camp, helping students build text-based games in Python. Gained experience simplifying concepts for ease of understanding

JSTI West 2023

ORISE & Los Alamos National Lab

Jun 2023 – Jun 2024

- + Developed tracer advection modeling framework with student research group and mentor from Los Alamos National Laboratory
- + Applied framework to build proof-of-concept weather forecast tool
- + Developed collaborative skills and project management in a research setting

Full-Stack Developer

Floracism

Jul 2023 – Present

- + Developed full-stack system for exploratory crowdsourced climate fundraising website using React, Express, Microsoft SQL Server, and Azure App service
- + Implemented authentication system and server caches for handling web traffic and user files. Learned fundamentals of system design, and cloud deployment

Framework Developer & Maintainer

Pixelterm

Feb 2024 – Present

- + Created and currently maintaining Python graphics rendering library for ANSI-based terminals
- + Gained experience using Numpy for optimization, packaging projects, writing documentation, and developing maintainable code

Discord Application Developer

Wordfish

Jun 2023 – Present

- + Designed Discord application using its Python API to analyze and visualize trends in user message content
- + Focused on clean user experience and data visualization using automated Excel spreadsheets
- + Deployed and operated on data from thousands of Discord users across multiple large communities

Skills

Java
Python
Typescript, Javascript, ES6
HTML, ReactJS, Electron

Microsoft Azure App Service & SQL Server
ExpressJS
Pytorch, Numpy
TensorflowJS

Interests

App and Web Development
Software Development
Computer Vision

Machine & Reinforcement Learning
Predictive and Decision-making Models
Graphic Design/Digital Art