

Steven
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Mathew

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Education

Sep 2019 - Present
Expected: May 2023

University of Toronto (BSc)

Specialist in Computer Science and Minor in Mathematics.

Received **Dean's List Scholar** award with a GPA of **3.94** (Major: 4.0). Entered with a **\$2000** UofT Entrance Scholarship.

Technologies

Languages	Python, Java, C, Go, Typescript, HTML, CSS, Rust, SQL, bash
Frontend	React, Next, Tailwind
Backend	Node, Express
Databases	MongoDB, PostgreSQL
Tools	Git, Unix, Postman, Makefile, Docker, Neovim, tmux

Experience

illuminote @ Hack the North

[repo](#)
[devpost](#)
[demo](#)

Pair-programmed a mixed-reality multiplayer game submitted to University of Waterloo's Hack the North 2020++ written in **Pygame** and **OpenCV**.

Accurately applied a transformation matrix to the screen contour to warp the image to a regular perspective.

Used canny edge detection to extract features from sticky notes on the screen to design the game map allowing the players to interact with the real world.

argus. @ Hack the 6ix

[repo](#)
[devpost](#)

Built a real-time accident detection solution for CCTV footage leveraging **TensorFlow**'s machine learning model in **Python** at Hack the 6ix.

Reports road accidents immediately to the web and phone via **Express** and Twilio API to reduce response time for assistance accommodations.

Accurately reports the location of the crash using Google geolocation and shows truncated footage of the crash.

Projects

readme. [repo](#)

Developed a fully-featured backend for curating projects targeted towards developers. Posts include comments and a voting system much like Reddit.

Designed a scalable, maintainable RESTful API using Typescript, Express, and Postgres.

Engineered performant, robust code with resilient error and exception handling, and used JWT authentication middleware to persist session information.

kNN-predict [repo](#)

A lightweight handwriting recognition tool written in **C** using k-nearest neighbors (with Euclidean and cosine distance heuristic functions) trained on the MNIST Dataset.

Used **parallelism** to efficiently distribute classification over multiple cores in the CPU.

Increased speeds up to **x64** using this multi-threaded approach.

Competitive Programming [repo](#)

A repository containing over **400** competitive programming solutions to online judges such as Codeforces, DMOJ, and Leetcode written in C++, Java, and Python.

Included a C++ open-source library of **blazingly-fast** templates for algorithms and data structures. Covered topics on Graph Theory, Dynamic Programming, Data Structure, and more.

Personal Website [demo](#)

Engineer and maintain a website using React, Typescript, Next.js, and Tailwind.

Ship a blog with live markdown preview and $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ rendering support, deployed through Vercel.