

Nathan Verghis

<https://nathan-verghis.github.io/portfolio/>

<https://github.com/nathan-verghis>

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EDUCATION

University of Guelph, Guelph — *Bachelor of Computer Science*

Sept 2019 - April 2022

Following my year at the University of Toronto, I continued my education in Guelph as a computer science major with a minor in Biology. From learning about software systems development to intelligent systems, I've been equipped with in-depth knowledge of many technology stacks which fuel our world today.

EXPERIENCE

University of Guelph, Guelph — *Web Developer*

July 2020 – Present

In this position I was able to help build a website from the ground up to simulate a virtual gallery, while also handling form submissions from applicants. A flexible environment where I was able to get acquainted with PHP and JavaScript to aid in the responsiveness of the site.

University of Guelph, Guelph — *Undergraduate Teaching Assistant*

September 2020 – Present

As an Undergraduate Teaching Assistant, I was tasked with teaching fundamental algorithms to students. This involved discussing issues such as algorithm optimization with runtime complexity and designing assignments to aid students in understanding and appreciating the elegance of efficient code.

PROJECTS

Digit Recognition AI — *A Machine Learning Algorithm to Recognize Hand-Written Digits*

July 2019 – Present

To get an understanding of the world of artificial intelligence, I undertook this project that most programmers start with, which led me to TensorFlow and a very basic understanding of the multi-variable calculus and statistics that surrounds every AI. In the future I plan to extend the data set to language processing by changing the network structure, thereby creating a network to read any English writing.

Snake Game (AI in progress) — *An Old Classic With a Modern Twist*

August 2019 – Present

This began with a desire to create a new, more complex AI, but quickly turned into a rabbit hole of delving deeper into the Pygame library as I discovered the intricacies of game design. Using this project, I can design my own neural network from scratch, completely isolated from the TensorFlow tools.

SKILLS

- Python
- Java
- C
- UNIX
- SQL
- JavaScript
- Swift

TECHNOLOGIES

- jQuery
- TensorFlow
- WordPress
- NumPy
- Unity
- Matplotlib
- Android Studio

INTERESTS

- Artificial Intelligence
- Game Development
- Real time Randomness
- Cloud Computing