William Ambrozic

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Technical Skills

LANGUAGES / FRAMEWORKS

- Python, JavaScript, TypeScript, Angular, MongoDB, Node, C, Java, SQL, C++, C#

OPERATING SYSTEMS

- Debian Linux, Windows, Mac OSX

DEVELOPMENT TOOLS

- Git, Vim, Atom, Android Studio, Unity

DESIGN TOOLS

- Adobe Photoshop, Illustrator, Premiere, After Effects, Maya, Blender, GIMP

Experience

PERSONAL PROJECTS

williamambrozic.info – Personal Website **July – August, 2019**

- Utilizing bootstrap to make a responsive website on both mobile and desktop
- Successfully hosts personal projects

NEAT Nueral Network Implementation for *Space Shooter* by Tasdik Rahman **Oct, 2018**

- Programmed in Python using Pygame and Object-Oriented-Programming (OOP)
- Implemented mathematical models for the NEAT algorithm
- Tinkered with a preexisting OOP program to meet NEAT needs

Modular Arithmetic Visualizer **July – August, 2018**

- Made in Python using Tkinter with Turtle Graphics
- Successfully visualizes Modular Arithmetic at different factors and differing degrees of nodes

Ouroboros – Android Game **March – May, 2017**

- Utilized Java and Android Studio
- Fully designed in Adobe Photoshop, and Illustrator
- Music made using Fl Studio

WORK EXPERIENCE

Magna International Inc. - Quality Engineering Student, Guelph, ON **May 2020 - December 2020**

- Independently developed and designed a MEAN stack (MongoDB, Express, Angular, Node) car part database application to be used across the whole plant of over a thousand employees deployable on AWS. Said project allows for .pdf, .csv, excel, .json, and .txt exporting of data, uploading of images, user accounts, secure hashing of user logins, visual representations of part data (Chart js), JWT tokenization, and more importantly allows for the whole plant to be notified of part defects through nodemailer.
- Helped successfully launch an auditing database ease.io to the plant. In doing so created proper user documentation.

EDUCATION

Bachelor of Computing, Computer Science (Co-op) **2018-present**
University of Guelph, Guelph, ON

- Completing a minor in Mathematics
- Awarded the entrance scholarship for students who achieve a 90+ average out of high school

Sample Courses Taken:

- CIS*3490 The Analysis and Design of Computer Algorithms
- CIS*2520 - Data Structures
- CIS*2430 - Object Oriented Programming
- MATH*2200 - Advanced Calculus II
- STAT*2040 – Statistics I
- MATH*1160 - Linear Algebra I

Key academic projects:

- *SVG File database (2020):* Independently created a database of SVG images using a combination of Ajax, HTML, JavaScript, and C. The database can be run on any modern web browser and allows for the addition, and manipulation of SVG elements (circle, rect, path, etc.).
- *Contact List on Disk (2019):* Worked independently to create a dynamic contact list written on disk using binary files in C. The user could edit, remove, or add to the list of contacts saving all required information directly to the disk.
- *Motorola 68K clock (2019):* Independently worked to produce a working clock written in assembly for the Motorola 68K microprocessor. The clock could be set, reset and in general held all requirements of a standard alarm clock.