# BRYNN DAVIS

brynndavis.ca · github.com/drynnbavis · b6davis@uwaterloo.ca

## SUMMARY

- Strong **OOP** principles built in **JS, C#, Python, C++** with over 3 years of experience
- Extensive application development experience in **ASP.NET** and **NodeJS**

## EXPERIENCE

### Hardware Designer | Curtiss-Wright Defense Solutions                    Jan. - Apr. 2018

- Implemented a producer-consumer **multithreading** structure to solve a synchronisation problem between diagnostic outputs of multiple Intel processors with **Python**
- Optimised an Intel Coffee Lake Processor throttling test in **Python** by using finite difference method to recognise stable die temperature and reduced run time by ~20%

### Applications Engineer | Manulife Financial                    May. - Sep. 2017

- Constructed an **MVC** web app for 200+ employees using **ASP.NET** and **Selenium** to deliver a platform for anonymous internal feedback and implemented **dependency injection** for unit testing with **NUnit**
- Developed an **HTML** and **JS** source code correcting tool in **C#** with an **ASP.NET** interface to fix problematic **HTML** blocks in a **MySQL** database with dynamic schema adaptation

### Automation / Applications Engineer | Gypsum Technologies          Jan. - Apr.  &  Sep. - Dec. 2016

- Built an **OPC UA** server to deliver **COM objects** between factory machines in **C#** and then displayed the data to subscribed clients in a custom-built **GUI**
- Reduced 2-hour manual drive performance tests down to 15 minutes, while increasing the quality of returned results by developing and implementing a **C++** library to automate the task
- Developed a desktop analytics app in **C#** that returns drive diagnostics from raw **encoder** data

## PROJECTS

### Handwritten Digit Classifying Neural Network                    Feb. 2018

- Obtained 93.14% accuracy on the MNIST dataset through backpropagation by **gradient descent** and reduced overfitting through implementing **L2-regularisation** and a **cross-entropy** cost function in **Python**

### Allergen-free Recipe Web App                    Aug. 2017

- Built with **NodeJS** to provide a simple means for anaphylactic persons to find safe and fun recipes
- Used **IIFE** structured **JS** to retrieve recipes from an **AJAX** call to an API and handled the promise with various **GUI** updates using **JQuery** to manipulate the **HTML** and **CSS**

## EDUCATION

### University of Waterloo, ON                    Expected 2020

- 3rd year Bachelor of Applied Sciences in Honours Co-op Mechatronics Engineering