BRYNN DAVIS

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SUMMARY

- Well-versed **OOP** principles built in **JS**, **C#**, **Python**, **C++** over 3 years of experience
- Primary **full-stack** experience focussed in **MongoDB**, **Express**, **Angular**, and **NodeJS**

EXPERIENCE

Hardware Engineer | Curtiss-Wright Defence 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%

Full Stack Developer | Manulife Financial — May. - Sep. 2017

- Constructed a **MVC** web app for 200+ employees using **ASP.NET** to deliver a social platform for anonymous internal feedback using **Razor** markup for DOM manipulation and **dependency injection** for unit testing
- Saved 120+ hours of work by developing an **HTML** stripper in **JS** to iterate through legacy client files and upload the contents to a **SQL** database

Automation 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 the **cross-entropy** cost function

Pill-Dispensing Robot | McMaster Innovation Nation — May. 2015

- Led and coordinated a team of seven colleagues to engineer a prizewinning robot designed to help regulate medication management for memory impaired patients
- Created models in **Inventor**, machined components, and **3D printed** custom parts

EDUCATION

University of Waterloo, ON — Expected 2020

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