

## TECHNOLOGIES

### Languages:

JavaScript, Python, Java, C++, C

### Web Development:

Node.js, React, JQuery, Spring, Handlebars, Apache Velocity

### Database:


MongoDB, Mongoose, SQL, PostgreSQL

### Machine Learning:

Tensorflow

## CONNECT

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 /Adam Ding

 /wqding

## EDUCATION

### UNIVERSITY OF WATERLOO

Computer Engineering  
Honors  
2018 - 2023

## ACHIEVEMENTS

### Western Canada High School

- Male Vocalist of the Year  
- Honor Society Lifetime Member

### Government of Alberta

- Alexander Rutherford  
Scholarship (\$2500)

## VOLUNTEERING

Bethany Retirement Living  
Church service assistant

# ADAM DING

 adamding.me

## EXPERIENCE

**Software Developer** – *DragonAgile Consulting Inc.* Aug. 2019 – Dec. 2019

- Spearheaded the development and deployment of a **full stack app for the JIRA Suite** using Node.js, Java, and Atlassian JS+REST APIs to **protect and manage sensitive information in issues (900+ users)**
  - Visualized data from the Google Data Loss Prevention API to **automatically detect sensitive information**
  - Architected symmetric encryption pipeline leveraging Crypto.js to securely store protected information on Atlassian's database
- **Consulted clients** developing software for JIRA Cloud

**Firmware Engineer** – *Midnight Sun Solar Rayce Car* Aug. 2019 – Present

- Designed and programmed software in C for the car's **front power distribution** to supply power to specific components as required
  - Utilized **CAN Bus network** for cross microcontroller communication

**Software Engineer** – *PointClickCare* Jan. 2019 – Apr. 2019

- Automated the data processing of 1134 entries from the Medicare.gov API by developing an internal application in **Java**, following **ORM** methodologies with the **Java Persistence API**; removed the need for weekly cross team collaboration
- Implemented 9 new rules to internal Drools rule engine repository; enhanced flagship product's ability to detect conflicts in user input by 14%

## PROJECTS

 **Productive Ambience** – *pa.adamding.me* Sep. 2019 – Dec. 2019

- Built and deployed a **MERN stack (Mongo, Express, React, Node)** app to create custom sonic environments and boost productivity
- Implemented password salting using bcrypt, and jwt authentication; allowing users to save/load multiple configurations

 **SUNify** Nov. 2019 – Dec. 2019

- Built a **CycleGAN** image processing model in **Tensorflow** and trained it using **unpaired data** to generate sunny images from cloudy images
- Programmed an input pipeline to apply various data augmentation techniques to images: Random Jittering, Mirroring, and Cropping

 **Neural Net Minus** Sep. 2019 – Nov. 2019

- Designed and built a neural network library **from scratch** capable of generating **fully connected neural networks of any shape**
- Implemented the back-propagation algorithm using gradient descent, leveraging multi-variable calculus and matrix math
- Programmed the model prediction pipeline by following the feed forward algorithm and performing complex matrix operations using the numpy library