


## CONNECT

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 /Adam Ding

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## TECHNOLOGIES

### Languages:

C++, C, Java, Python,  
JavaScript, HTML/CSS, SQL,

### Frameworks & Tools:

TensorFlow, Numpy,  
Node.js, React, Express,  
jQuery, Git, AWS,  
Handlebars

### Databases:

PostgreSQL, MySQL,  
MongoDB

## EDUCATION

### UNIVERSITY OF WATERLOO

Computer Engineering  
Honours  
2018 - 2023

## ACHIEVEMENTS

### Western Canada HS

- Male Vocalist of the Year  
- Honor Society Lifetime  
Member

## FUN FACTS

- I can eat 12 slices of pizza in  
30 mins  
- The world's heaviest bench  
press is 1,102 lbs by Paul  
Meeker  
- My max bench is 200lbs

# 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**)
  - Built a visualization tool for auto-detected sensitive data from the Google Data Loss Prevention API for users to review and manage
  - Architected **AES** encryption pipeline leveraging **Crypto.js** to securely store protected information on Atlassian's database
- **Consulted clients** developing software for JIRA Cloud

**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**
- Followed **ORM** methodologies with the **Java Persistence API**, removing 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%**

**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

## PROJECTS

### **Neural Net Minus**

- Designed and built a neural network library **from scratch** capable of generating **neural networks of any configuration**
- Implemented the back-propagation algorithm using **stochastic gradient descent**, leveraging techniques from multi-variable calculus and linear algebra
- Programmed the model prediction pipeline and performed complex matrix operations using the **numpy** library

### **Productive Ambience** – link: [pa.adamding.me](https://pa.adamding.me)

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

### **SUNify**

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