

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
Honours
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**)
 - Presented automatically detect 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

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**
- 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%**

PROJECTS

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

- Built and deployed a **MERN stack (Mongo, Express, React, Node)** app to create custom auditory 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 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

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

- 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