# **Nathan Cheung**

#### **EDUCATION**

### **Ryerson University**

Bachelor of Engineering in Software Engineering

Dean's List: 2018 - 2020

# GPA: **3.82**

#### **PROJECTS**

#### **Youtube Video Synchronizer**

https://vidshare.ca

Exp. Apr 2022

- Developed a full-stack web application to watch YouTube videos with others synchronously
- Synchronized user activity using websockets and Express.js, serving around 2000 monthly users
- Designed front-end UI using HTML, CSS, JavaScript, and Bootstrap

# AnonBoard - 4<sup>th</sup> at IBM Hackathon

https://tiny.cc/dm56tz

- Developed an online job board that aims to remove racial bias in the hiring process
- Utilized **computer vision** and **natural language processing** to block discriminable information
- Constructed A.I. endpoints using IBM Cloud Functions and web application with Firebase and React

### **Automated Classifieds Bot**

https://git.io/JkKfz

- Created a Python bot to identify high-margin listings and notify user via email
- Utilized **Selenium**, **numpy**, and **pandas** to scrape classifieds listings and store data dynamically
- Automated and deployed bot using an AWS EC2 instance, handling email notifications with smtp

# Handwritten Digits Classifier

https://tiny.cc/izm5tz

- Created and trained a **neural network** in **Keras** to classify handwritten digits
- Designed a full-stack web application to visualize neuron layer with **Node.js**, **React**, and **Express.js**

## **Password Manager**

https://git.io/JkKk6

- Created a **Python** application to store and retrieve passwords securely
- Ensured security using bcrypt's password hashing and AES-128 encryption for all data retrieved

#### **EXPERIENCE**

#### **Software Engineer Intern**

IBM Canada

May 2020 - Present

- Developed a full-stack web application using TypeScript, React/Redux, and Express.js
- Constructed an end-to-end workflow testing suite to improve error catching by 70%
- Built a database monitoring bot to re-route misplaced support tickets, increasing NPS score by 30%
- Automated an internal data analytics tool to visualize support satisfaction metrics in real-time
- Deployed all applications in Docker Containers using CI/CD pipelines with Travis CI

# **Customer Experience Associate**

TD Canada Trust

Aug 2019 - Apr 2020

- Granted the additional responsibility to handle secure-desk and bank vault combinations
- Complied with branch control procedures to prevent identity theft, money laundering, and fraud

#### **TECHNICAL SKILLS**

Languages: Python, JavaScript, Java, HTML, CSS, C, SQL

Tools/Technologies: Git, Node.js, TypeScript, Docker, AWS, Express.js, Travis CI, JIRA, MongoDB, Keras