# **Nathan Cheung**

#### **EDUCATION**

# **Ryerson University**

Bachelor of Engineering in Software Engineering

Dean's List: 2018 - 2020

Exp. Apr 2022

GPA: **3.85** 

#### **EXPERIENCE**

# **Software Engineer Intern**

IBM

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 scores by 30%
- Managed a group of interns to develop a 3-week educational course for the usage of internal tools
- 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**

# **Full Stack Engineer Intern**

LunaID

Jan 2021 - Present

- Utilized **machine learning** to detect insects and recommend pesticides for agricultural farmers
- Created a full-stack mobile application using React Native and Firebase
- Constructed data workflow pipeline to annotate and prepare 36GB of image data
- Trained object detection COCO-SSD TensorFlow model to classify insects based on species and age

# **PROJECTS**

# Youtube Video Synchronizer

https://vidshare.ca

- 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 - 4th 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

# **TECHNICAL SKILLS**

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

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