# Nathan Cheung

ncheung.ca | nathancheung22@gmail.com

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## EDUCATION

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**Ryerson University**

Bachelor of Engineering in Software Engineering                          Exp. Apr 2023

Dean's List: 2018 - 2021                                                 GPA: **3.90**

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## EXPERIENCE

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**Software Engineer Intern**

*IBM*                                                                *May 2020 - Present*

· Developed a mainframe application to be used by 300+ engineers in the GTS organization

· Led a team of 4 interns by guiding them through the stack and approving pull requests

· 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%

· Deployed **CI/CD pipelines** using **Docker, Kubernetes,** and **Travis CI** to ensure 0 downtime

**Full Stack Engineer Intern**

*LunaID*                                                             *Jan 2021 - Present*

· Developed Android and iOS app to detect insects and recommend pesticides for agricultural farmers

· Constructed a data pipeline to annotate and prepare 36GB of image data for ML model training

· Uploaded images for verification with **React Native** as the front-end and **Firebase** as the backend

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## PROJECTS

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**Youtube Video Synchronizer**                                    https://vidshare.ca

· Developed a full-stack web application to watch YouTube videos with others synchronously

· Synchronized user activity using **websockets**, serving around 4400 monthly and 630 unique visitors

**Password Manager**                                              https://git.io/JkKk6

· Created a **Python CLI** to store and retrieve passwords securely

· Ensured security using **bcrypt's** hashing algorithm and **AES-128 encryption** for all data stored

· Implemented **password salting** for additional security against rainbow table attacks

**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

· 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**

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## TECHNICAL SKILLS

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

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