Nathan CHEUNG

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▦ SUMMARY

Languages	Python, TypeScript/JavaScript, Java, C, Objective-C, SQL/NoSQL, Assembly, VHDL
Tools & Technologies	Docker, Kubernetes, NodeJS, React/React Native, Android Studio/Xcode, AWS, Websockets, Git
Education	Toronto Metropolitan University, BEng. Software Engineering, 2023, GPA : 3.98

💼 EXPERIENCE

Amazon – Software Development Engineer Intern   MAY 2022 – AUG 2022
> Developed on Cradle; an internal big data transform tool processing 1.20MM jobs/week
> Implemented Angular.js to React migration for Cradle, improving front-end load times by 1134%
> Architected and designed data previewing function for Cradle, reducing unnecessary AWS EC2 & S3 resources
> Maintained Cradle's backend architecture by fixing versionset mismatches and pipeline build issues

`Java` `React` `TypeScript` `Angular.js`

IBM – Software Engineer Intern   MAY 2020 – APR 2022
> Developed a z/OS mainframe debugger used by 300+ engineers in the GTS organization
> Supervised a team of 5 interns through pair programming, 1:1s, code reviews, and technical lessons
> Engineered a database monitoring bot to re-route misplaced support tickets, increasing NPS scores by 30%
> Deployed 3 applications through cross-functional teams using CI/CD pipelines

`NodeJS` `Python` `Docker` `Kubernetes` `Machine Code`

LunaID – Mobile Application Developer Intern   JAN 2021 – AUG 2021
> Developed Android and iOS apps to detect insects and recommend pesticides for agricultural farmers
> Constructed a data pipeline to annotate large image datasets for object classification training
> Designed web application to re-pipe user submitted images back for further CV training, increasing model accuracy by 22%
> Compiled and deployed mobile app to the Apple App Store and Google Play Store for enterprise use

`React Native` `Firebase` `Computer Vision` `Python`

💻 PROJECTS

Youtube Video Synchronizer   🔗 Website
> Developed a full-stack web application to watch YouTube videos with others synchronously
> Synchronized concurrent user activity using websockets, serving 5800+ unique monthly visitors from 32+ countries

`Websockets` `JavaScript` `NodeJS` `CSS`

Password Manager   Github Repo
> Created a Python password Manager CLI to securely store and retrieve passwords
> Ensured security using the bcrypt hashing algorithm and encrypted all data using the AES-128 algorithm
> Implemented password salting and peppering for security against brute force and rainbow table attacks

`Python` `Encryption` `Hashing`

Automated Classifieds Bot   Github Repo
> Created a Python bot to identify high-margin classified listings and notify users via email
> Automated and deployed bot using an AWS EC2 instance, handling email notifications with smtp protocol

`Python` `AWS` `Web scraping`

AnonBoard - 4th at IBM Hackathon   ▶ YouTube
> Developed an online job board that aims to remove racial bias in the hiring process
> Utilized computer vision and natural language processing to censor discriminable personal information on a resume

`Python` `NodeJS` `Computer Vision` `NLP`