Nathan CHEUNG

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💼 EXPERIENCE

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

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/new-grads through pair programming, 1:1s, code reviews, and tech syncs
> Architected a support ticket queue monitoring bot to re-route misplaced tickets, increasing NPS scores by 30%
> Deployed 3 applications through cross-functional teams using Docker, Kubernetes, and CI/CD pipelines

Docker | Kubernetes | IBM Cloud | NodeJS | Python

LunaID – Mobile Application Developer   JAN 2021 – AUG 2021
> Developed Android and iOS apps that classifies insects and recommends pesticides for agricultural farmers
> Constructed a data pipeline to annotate large image datasets for object classification training
> Designed backend architecture that re-piped user submitted images 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 | Computer Vision | Python | NodeJS

💻 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 | Concurrency | NodeJS | CSS

Password Manager   🐙 Github Repo
> Created a Python password manager CLI using bcrypt hashing and AES-128 encryption
> 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

📋 SUMMARY

Languages	Python, Java, TypeScript/JavaScript, C, Objective-C, SQL/NoSQL, Assembly, VHDL
Tools & Technologies	Docker, Kubernetes, CI/CD, NodeJS, React/React Native, AWS, IBM Cloud, TensorFlow, Git

🎓 EDUCATION

BEng. Software Engineering – Toronto Metropolitan University   GPA : 3.98