

Chris Tan

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EDUCATION

University of Waterloo

Waterloo, ON | 2019 - 2024 (Expected)

BASc. IN COMPUTER ENGINEERING

Cumulative GPA: 88.5/100

WORK EXPERIENCE

WISH | SOFTWARE ENGINEERING INTERN

Toronto, ON | Jan 2022 - Apr 2022

- Implemented a **GraphQL** service to dynamically price products based on region/seller criteria, serving **18,000** successful requests by first week launch, increasing North American marketplace supply up to **120%**.
- Spearheaded a new product return project by designing **Mealy finite-state-machine** data objects in **Python** to enable reshipment/returnless refund, a two-day timeout window, to reduce product return rates.
- Created **MongoDB** query scripts to calculate merchandise value metrics to reduce business analysis time by **34%**.
- Designed new **MongoDB schemas** to create permission roles for business-side clients to access new admin tools.

ELECTRONIC ARTS | SOFTWARE ENGINEERING INTERN

Vancouver, BC | May 2021 – Aug 2021

- Deployed a **Kotlin Spring** app to evaluate game-logic rules that integrate with external services, enabling **code scalability** for Apex/Battlefield teams by reducing code size for subsequent feature tickets by **245%**.
- Collaborated with cross-platform teams to build an internal **message bus** in **Kotlin** to coalesce external data brokers into one central service, preventing **manual dependency injections** when exchanging cross-platform data.
- Engineered **gRPC endpoints** to enable **Redis** cache bypassing, improving endpoint accesses for non-time-sensitive data and saving resources for time-sensitive data, reducing **compulsory misses** by **50%**.

INSTICATOR INC. | BACKEND ENGINEERING INTERN

Kitchener, ON | Sep 2020 - Dec 2020

- Constructed an API request **backup functionality** by storing request JSONs in an **AWS S3 Bucket**, integrating a restore parameter to roll back executed requests, serving **1000+** endpoint calls in the first week.
- Developed a **Java Play** web app to allow clients to edit ad subscriptions in **React** using **MVC pattern** architecture.

SCOTIABANK | SOFTWARE DEVELOPER INTERN

Toronto, ON | Jan 2020 – Apr 2020

- Directed development and design of a **Java Spring Boot** application that queries databases for wire transactions utilising **Hibernate/JPA**, allowing transaction info access for South American overseas users.
- Built a Spring app to run **cron MySQL** scripts in **JDBC** to automate metric gathering, saving hours of business work.

PROJECTS

COMMENTIQUETTE [↗](#)

RNN, PYTHON, TENSORFLOW, KERAS, FLASK

- Developed a **multi-layer recurrent neural network** to mimic comment parlance of particular YouTube channels, hosted on **Flask**. Trained the model with custom datasets gathered from Python scripts.

INK'D [↗](#)

REACT.JS, SERVERLESS, AWS (S3, LAMBDA, DYNAMODB, API GATEWAY, COGNITO)

- Assembled a complete **Serverless** framework web application that builds writing skeletons for project creation for creative writers, leveraging AWS to create API layer, object stores, and user authentication.

SKILLS

Languages: Python, Java, Kotlin, C++, C, Javascript, Scala, MATLAB, Verilog, HTML/CSS

Frameworks: GraphQL, Spring, Play, Node, Express, React, Tensorflow, Flask, Serverless

Technologies: Linux, Git, AWS, Maven, Gradle, MongoDB, Docker, Kubernetes