## **James Ting**

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### **Education**

## Bachelor of Science, Computer Science Major | McGill University

Sept 2018 - April 2022 | Montreal, Canada

**cGPA:** 3.89/4.00

**Awards:** Quebec Ministry of Higher Education Excellence Bursary for Computer Science (2020 – 2021) **Coursework:** Software Design, Discrete Mathematics, Data Structures & Algorithms, Theory of Computation,

Programming Languages and Paradigms, Machine Learning

Extracurriculars: Co-President @ Hong Kong Student Network (Mar 2020 - Mar 2021)

#### **Experience**

## Software Development Engineer Intern | Amazon

Jun 2021 - Present | Vancouver, Canada

- Designed an approval workflow for AWS CloudFormation using GitOps principles, where every pull
  request triggers an automated workflow that will push a comment to each pull request which
  describes the infrastructure changes made by each pull request.
- Employed various AWS services, including **Lambda**, **DynamoDB**, and **Simple Queue Service** to design a highly scalable and highly available service.
- Coded an automated infrastructure deployment system using the **AWS CDK** to provision necessary resources for the approval workflow, including 4 Lambda functions and 2 SQS queues.

# Undergraduate Research Project | Data-Intensive Storage and Computer Systems Lab @ McGill University

Jan 2021 – Apr 2021 | Montreal, Canada | Volunteer Research Project

- Created a **collaborative filtering** and 4 different **Monte Carlo Tree Search** systems as **real-time recommendation systems** for champions in League of Legends.
- Demonstrated the viability and scalability of Monte Carlo Tree Search for a large-scale recommendation system, with 99th percentile latency of **0.282 seconds** for Monte Carlo Tree Search.
- Automated the collection of a dataset containing **1,357,359 matches** using NodeJS and engineered several reward functions for the MCTS system.

#### Software Developer Intern | Nuance Communications

Sept 2020 - Dec 2020| Montreal, Canada

- Packaged a comprehensive testing suite for a gateway microservice using the **Jest** framework, resulting in **code coverage of up to 91%** across several modules.
- Developed a **NodeJS runtime configuration watcher library** to allow modifications to the configuration of microservices without requiring a redeployment of Kubernetes pods, **increasing service up-time**, and simplifying the codebase.
- Prototyped a NodeJS POC to demonstrate the feasibility of using OpenTelemetry and Jaeger for distributed tracing in the team's microservices.

## **Personal Projects:**

Pathfinding Algorithm Visualizer, Superhero Team Builder & League of Legends Match Outcome Prediction

## **Skills and Technologies**

- Programming Languages: Java, Python, C, JavaScript, OCaml
- Frameworks/Technologies: PyTorch, React[S, Node]S, Git, Docker, Kubernetes, Helm
- AWS Services: Amazon DynamoDB, Amazon Simple Queue Service, AWS Lambda, AWS Systems Manager, AWS CLI, AWS SDK
- Languages: English (Native Fluency), French (Native Fluency), Cantonese (Advanced Fluency)
- Certifications: Glider Pilot's License, Private Pilot's License with Night Rating and Multi Engine Rating