

James Ting

(514)-834-9338 | tingjamesb@gmail.com | jamesting.ca | <https://www.linkedin.com/in/james-b-ting/>

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), Undergraduate Teaching Assistant @ McGill University (Sept 2021 – Present)

Experience

Software Development Engineer Intern | AWS CloudFormation @ Amazon

Jun 2021 – Aug 2021 | Vancouver, Canada | Internship

- Designed a highly scalable, cloud-native approval workflow for **AWS CloudFormation** using GitOps principles, where every pull request trigger will automatically describe infrastructure changes.
- Constructed an extensive testing and documentation suite for packages, achieving over 90% code and branch coverage.
- Employed various AWS services, including **API Gateway, Systems Manager, Lambda, DynamoDB, and Simple Queue Service**
- Leveraged the **AWS CDK** to automatically provision necessary resources for the approval workflow, including 4 Lambda functions, 2 SQS queues and an API Gateway.

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

Jan 2021 – Apr 2021 | Montreal, Canada | 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 | NLUaaS Team @ Nuance Communications

Sept 2020 – Dec 2020 | Montreal, Canada | Internship

- 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.
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Personal Projects:

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

Skills and Technologies

- Programming Languages: Java, Python, C, JavaScript, TypeScript, OCaml
- Technologies: PyTorch, ReactJS, NodeJS, Git, Docker, Kubernetes, Helm, AWS SDK/CDK, AWS
- 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