Andrew Jemin Choi

Canadian Citizen *USA Permanent Resident*
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Education

University of Toronto

Master (M.Sc.) in Computer Science (In progress) — *Spring 2021 (Expected)*
Bachelor (B.A.Sc.) in Computer Engineering with Honours — *Spring 2019*

Experience

University of Toronto

Toronto, ON
Teaching Assistant — *Fall 2016 - Present*

- Managed four groups of students to build a large graphical mapping software in C++ and taught students about various software development tools such as git, gdb, unit testing, and profiling (ECE297 - Communication and Design)
- Designed new assignments and automated testers in C++ and Rust to teach students about object-oriented programming, concurrency, and databases (ECE326 - Programming Languages)
- Led weekly tutorials to teach first year students about computer engineering, professional development, and engineering problem solving (APS100 - Intro to Engineering)
- Received "Outstanding" TA ratings from course surveys, with an average rating of 6.87/7

Amazon Web Services (AWS)

Seattle, WA
Software Development Engineer Intern — *Summers 2018, 2019*

- Worked on the DynamoDB team to develop a host management tool for table indexing requests **(Summer 2019)**
- Created an internal Java client library for the EC2 Provisioning service to monitor and replace unhealthy hosts, reducing tickets to manually migrate stale instances
- Integrated tool with a distributed job scheduler to automatically trigger stale host checks and output logs
- Worked on the AWS Internet of Things (IoT) team to create Python tools to streamline the on-boarding process for devices, reducing user wait times by 60% **(Summer 2018)**
- Implemented an Android App in Java that was used as a reference model for customers to show how to authenticate and authorize devices on to AWS IoT

Safran

Peterborough, ON
Software Engineering Intern — *Summer 2016*

- Developed a Python program to parse and verify aviation requirements, reducing human errors by ~50%
- Reviewed software architecture diagrams and wrote documentation for avionic code written in C and Assembly
- Received NSERC Experience Award ($5625), for research in improving software traceability in embedded systems

Research

University of Toronto

Toronto, ON
Research Student, Blockchain Lab — *Fall 2019 - Present*

- Researching novel methods to accelerate storage performance in Blockchain systems, under Prof. Fan Long
- Developed performance benchmarks and experiments for Ethereum clients to evaluate the effectiveness of a run-time smart contract validation tool *(paper under review; arXiv:1911.12555)*

University of California, Los Angeles (UCLA)

Los Angeles, CA
Research Student, StarAI Lab — *Summer 2017*

- Explored topics in artificial intelligence and researched ways to perform faster inference on Bayesian Networks
- Developed a tool written in Python and C that was 8 times faster than existing algorithms in finding marginal probabilities by compiling feed-forward arithmetic circuits
- Research Abstract published in the 2017-2018 issue of RUCS, supervised by Prof. Guy Van den Broeck