Andrew Jemin Choi

⚑ *Canadian Citizen*   ⌂ *USA Permanent Resident*

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Education

University of Toronto
Masters (M.Sc.) in Computer Science (In progress)   *May 2021 (expected)*
Bachelors (B.A.Sc.) in Computer Engineering with Honours   *May 2019*

Work Experience

Google   *Remote (Sunnyvale, CA)*
Software Engineering Intern   *Jun - Sep 2020*

- Worked on the Global Networking team to develop an internal OpenConfig service in Go to aggregate and monitor routing data
- Created a client that asynchronously streams events from the service using gNMI/gRPC APIs to log abnormal network activity

Amazon Web Services (AWS)   *Seattle, WA*
Software Development Engineer Intern   *May-Aug 2018, 2019*

- Worked on the DynamoDB team to develop a Java client library for RESTful APIs to monitor and replace EC2 hosts for table indexing requests (Summer 2019)
- 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)

Safran   *Peterborough, ON*
Software Engineering Intern   *May - Aug 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

Research and Teaching

University of Toronto   *Toronto, ON*
Research Student, Blockchain Lab   *Sep 2019 - Present*

- Researching novel methods to accelerate storage performance in Blockchain systems, supervised by Prof. Fan Long
- Developed performance benchmarks and traces for Ethereum clients to evaluate the effectiveness of a run-time smart contract validation tool *(Published in PLDI 2020)*

University of Toronto   *Toronto, ON*
Teaching Assistant   *Sep 2016 - Present*

- Managed 30 students on building a virtual conference software project in Java, and held weekly code reviews on clean architecture and principles of robust software design (CSC207 - Software Design)
- 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)
- Received "Outstanding" TA ratings from course surveys, with an average rating of 6.87/7

University of California, Los Angeles (UCLA)   *Los Angeles, CA*
Research Student, StarAI Lab   *Jun - Sep 2017*

- Explored topics in artificial intelligence and researched ways to perform faster inference on Bayesian Networks
- Developed a C tool that finds marginal probabilities by compiling feed-forward arithmetic circuits, achieving 8-times speedup compared to naive backpropagation