Andrew Jemin Choi

⚑ *Canadian Citizen* ⌂ *USA Permanent Resident*

☐ 213-536-1436 | ✉ aj.choi@mail.utoronto.ca | ⚉ andrewjeminchoi | ⬛ ajchoi

Education

University of Toronto

Master (MSc) in Computer Science (In progress)   *Spring 2021 (Expected)*
Bachelor (BASc) in Computer Engineering with Honours   *Spring 2019*

Work Experience

Google   *Remote (Sunnyvale, CA)*
Software Engineering Intern   *Summer 2020*

- Worked on the Global Networking team to develop a new gNMI service in Go used to monitor networking information
- Created an internal server that asynchronously streams BGP data and lets clients subscribe to events using OpenConfig

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

- Worked on the DynamoDB team to develop an internal Java client library to monitor and replace unhealthy 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)**
- 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

Research and Teaching

University of Toronto   *Toronto, ON*
Research Student, Blockchain Lab   *Fall 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   *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)
- 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   *Summer 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