Andrew Jemin Choi

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Education

University of Toronto *Toronto, ON*

B.A.Sc. in Electrical and Computer Engineering *Spring 2019 (expected)*

CGPA: 3.72 / 4.0

Experience

Amazon (AWS) *Seattle, WA*

Software Development Engineer Intern *Summer 2018*

- Worked on the AWS Internet of Things (IoT) team to streamline the on-boarding process for things and devices
- Created an open source one-button script to automatically connect Raspberry Pi's to AWS IoT using the AWS Python SDK and AWS IoT SDK, reducing user on-boarding wait times by 60%
- Developed an Android App in Java that was used as a reference model for customers to show how to authenticate and authorize Android devices using Amazon Cognito, AWS IAM, and the AWS Mobile SDK

University of California, Los Angeles (UCLA) *Los Angeles, CA*

Research Student, StarAI Lab *Summer 2017*

- Explored topics in artificial intelligence and researched new ways to perform faster inference on Bayesian Networks by optimizing graph structures
- Developed a Python/C tool that was 8 times faster than the state-of-the-art algorithm in finding marginal probabilities by compiling and optimizing feed-forward arithmetic circuits
- Research Paper published in the 2017-2018 issue of RUCS, under the supervision of Dr. Guy Van den Broeck

University of Toronto *Toronto, ON*

Teaching Assistant, Introduction to Engineering *Fall 2016*

- Led weekly tutorials to teach students about computer engineering practices, engineering ethics, and problem solving approaches
- Received an "Outstanding" TA rating from a class of 25 students, with an average rating of: 6.87/7

Safran *Peterborough, ON*

Software Engineering Intern *Summer 2016*

- Designed and documented architecture diagrams for ~1000 functions for embedded libraries written in C and Assembly
- Developed a Python program to efficiently parse aviation requirements and cross-check data flow in the code, reducing documentation errors by ~50%
- Received the NSERC Experience Award, valued at $5625, for undertaking an industrial software engineering research project

Projects

Mapping the City of Toronto

C++11

- Led a team of 3 in developing a C++ mapping program on Linux using OpenStreetMap APIs
- Used unit testing and profiling for ~10000 lines of code to isolate bugs and pinpoint performance issues
- Created interactive and responsive graphics for the mapping interface and applied heuristics to optimize graph algorithms and to approximate Travelling Salesman solutions (~50% faster than expected metrics)

FaceAverage

Python

- Developed a Python app to overlay and average facial pictures using OpenCV's similarity transform
- Used the dlib landmark detector to find common facial features and align them using triangulation