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 with the AWS Internet of Things (IoT) team to create a one-touch onboarding script for Raspberry Pi's using the AWS Python SDK
- Developing an Android App in Java to automate and verify authentication and authorization of devices using Amazon Cognito 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 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 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 research project in software engineering

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