Andrew Jemin Choi

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Education

University of Toronto *Toronto, Canada*

B.A.Sc. in Electrical and Computer Engineering *Sep. 2014 - May. 2019 (expected)*

CGPA: 3.72 / 4.0 | Dean's List 2014-2017 | UofT Scholar

Experience

University of California, Los Angeles (UCLA) *Los Angeles, U.S.A.*

Research Student at the Statistical and Relational Artificial Intelligence Lab *Jun. 2017 - Sep. 2017*

- Explored new ways to perform faster inference on Bayesian Networks by compiling networks into hardware and 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 accepted into the 2017 issue of RUCS, under the supervision of Dr. Guy Van den Broeck

University of Toronto *Toronto, Canada*

Teaching Assistant – APS 100 (Introduction to Engineering) *Sep. 2016 - Dec. 2016*

- Organized and led weekly tutorials to teach students about computer engineering practices and problem solving approaches
- Received an "Outstanding" TA rating from a class of 25 students (average rating: 6.87/7)

Safran Electronics and Defense *Peterborough, Canada*

Software Engineering Intern *May 2016 - Aug. 2016*

- Designed and documented architecture diagrams for over 1000 functions for the Control Gear and Power Unit 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, to define a documentation process and improve avionic software traceability for Bombardier's G7K/8K aircrafts

University of Toronto Engineering Outreach *Toronto, Canada*

Python Instructor *May 2015 - Aug. 2015*

- Designed and delivered a Computer Engineering course in Python to over 120 students at UofT's engineering summer camp and led science workshops for elementary students across Toronto

Projects

Mapping the City of Toronto

C++11, Git, Linux *Winter 2016*

- 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 in the program
- 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)

Skills

- C; C++; Python; Java; JavaScript; PostgreSQL (with JDBC); Verilog; Assembly