CHARLIE HUANG

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EDUCATION

University of Toronto   **Expected Graduation 2018**
- o *B.A.Sc.* in Engineering Science – Electrical and Computer Engineering
- o Honor Roll 2014-2016, President's Entrance Scholarship (2013)

TECHNICAL SKILLS

Languages: Python, C/C++, Java, Perl, CShell, Tcl, Verilog, Objective C
Technologies: Linux/Unix, Perforce, Visual Studios, Arduino, Xcode, NIOs 2 Assembly

PROFESSIONAL EXPERIENCE

Software Developer Intern   **May 2017 – Aug 2017**
Google   **Waterloo, Canada**
- o Designed and implemented a safe, easy to use, and serializable Money API
- o Updated Display Ads Infrastructure's auction codebase to make use of new API
- o Refactored code to help facilitate new auction services

Software Engineering Intern   **May 2016 – Apr 2017**
Advanced Micro Devices   **Sunnyvale, USA**
- o Provided support and enhancements to the TileBuilder Infrastructure, a distributed system used for automated design flow for VLSI physical design
- o Enabled caching and parallel processing in critical paths of the flow to improve runtime
- o Constructed new parameterized design flows for early technology evaluation
- o Wrote Python scripts to process data and store performance metrics into MySQL databases
- o Wrote and updated Tcl scripts for calculating utilization, leakage power, timing analysis
- o Wrote software regression test suites

Research Intern   **May 2015 – July 2015**
Lund University   **Lund, Sweden**
- o Designed an ASIC for matrix multiplication from behavioural description to GDSII
- o Utilized CAD circuit-design tools: ModelSim, Design Vision, and Cadence Encounter
- o Wrote Python scripts to optimize design by performing parameter sweeps of utilization density and aspect ratios

EXTRACURRICULAR

Volunteer at Habitat for Humanity   Summer 2017
Developer of an Interactive Image Processing Game   Summer 2016
Team Lead for Autonomous Mobile Robot Project   Winter 2015
Application Game Developer at Royal Ontario Museum   Summer 2014
Volunteer at Front Desk of YMCA   2012 – 2013