Danliang Wang

http://masatoprc.github.io/
Expected Graduation : Aug 2019

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Programming Skills

- **Languages**: Java, C++, C, Python, SQL, Bash, Javascript, MIPS Assembly
- **Technologies**: Android, Networking, Distributed Systems, Database, Git, GDB
- **Interests**: Software Engineering, Infrastructure, Machine Learning, DevOps

Education

- **University of Waterloo** — Waterloo, ON
  Candidate for Bachelor of Computer Science, Honours, Business Option; GPA: 4.00 — *Sep 2015 – Ongoing*

Experience

- **Square** — San Francisco, CA
  Software Enginee Intern — *Sep 2018 - Dec 2018*
  - Design and implement Diagnostic Reporter (DR), a system service in SQUID (SQUare AndroID) that collects system wide diagnostic information (such as AOSP bugreport, logs, app-supplied contents), packs in a protobuf and sends to Square server
  - DR can be trigged by multiple sources, including Intent, kernel and native daemon crashes or an attached device
  - DR runs on Square Terminal and Square Register. On Register, it runs on both Seller Facing Device (SFD) and Buyer Facing Device (BFD) and uses TCP for inter-device communication
  - Added telemetry to track uptime taken before a device gets network time for the first time after boot
  - Created scripts to add Square Register BFD log files in Jenkins by pulling into SFD using adb
  - Migrated Python unit tests to kochiku from hardware test rack
  - Used: Java, C++, Python, Embedded Android, Protocol Buffers, kochiku, pytest
- **Intel Corporation** — Toronto, ON
  Software Engineering Intern — *Jan 2018 - Apr 2018*
  - Implemented multiple compiler optimization passes that accelerate CNN workloads for image recognition: Average Pool Pass, Last Convolution Padding Pass, etc., for Intel Deep Learning Accelerator (DLA) Compiler
  - Created Global Average Pool Pass that enabled support for ResNet-101 network with very large input dimensions
  - Improved coverage of various concat topologies with Cascade Concat Pass and Multiple Concat Users Pass
  - Created Convolution Multi-buffer Output Pass which enabled the DLA compiler to support the latest Intel's Deep Learning Inference Engine features
  - Developed multiple Python scripts to automate routine tasks
  - Created unit tests for multiple compiler passes by defining new network topologies using protocol buffer
  - Used: C++, CNN, Python, Perforce, FPGA, Caffe, Protocol Buffers
- **BlackBerry** — Mississauga, ON
  Software Development Student — *May 2017 - Aug 2017*
  - Prototyped and developed cloud backup and restore feature for BlackBerry Password Keeper
  - Developed background events tracking feature for BlackBerry DTEK
  - Integrated AMap API into BlackBerry DTEK to support the event location tracking feature in China
  - Developed save, quick settings, edit, RTL features for BlackBerry Notable
  - Fixed multiple tricky bugs for existing features in BlackBerry Android Apps
  - Used: Java, Git, Jira, SQLite, Drive API for Android, AMap API, Android Studio

Projects

- **Lunar Lander**:
  - A game in which a player attemps to land a lunar landing module safely on the Moon
  - Enabled users to edit terrain with direct manipulation and the ability to undo/redo edits
  - Used: Java, Swing, Direct Manipulation, Undoable Edits, MVC