# Philip (Weiyuan) Bao

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## SKILLS

- Software: C, C++, Java, Python, TCL, Bash, SQL, MongoDB, Assembly
- Hardware: System Verilog, PSpice
- Web Development: HTML/CSS, AngularJS, Backbone.js, Node.js, jQuery, Bootstrap
- Tools: Matlab, Android Studio, Microsoft Visual Studio, Bash, Vim, Git

## WORK EXPERIENCE

**IPD Engineer, PEY Intern** June 2016 – (Expected) Apr 2017

Intel, San Jose, CA, USA

- Emulated a 100G Ethernet IP design of Intel's new 14nm FPGA, Stratix 10.
- Designed a comprehensive multi-mode 100G multilane Ethernet design test platform which be able to generate and analyze millions of packets efficiently in System Verilog.
- Wrote Tcl and Bash script to automate Synopsys/synthesis flow and used by a team of 10 people.
- Wrote Bash script to automate and customize VCS design simulation to help debug Ethernet design.

**Mobile Application Developer, Coop** May 2015 – Aug 2015

BlackBerry Inc., Ottawa, ON, Canada

- Developed an Android mobile search application with a team of 10 people which performs fast searches of 12 categories from databases containing over 100k items.
- Improved result rending performance, and optimized some categories' search performance by 30%.
- Participated in agile software develop process and used project tracking system like JIRA.
- Completed the work term with an outstanding evaluation.

## PROJECTS

**Course Recommendation System** May 2016 – Now

- Developed an academic platform with friends which used by students to share reviews of courses, professors and exams, and watch video tutorials of some courses.
- Using MongoDB and Flask as backend and Backbone.js and jQuery as frontend.

**2D Robot User Interface Design** Nov 2015

- Designed a 2D robot user interface with C++ to let the user easily control the robot to move along the path, avoid obstacles, etc.
- The robot is able to navigate itself based on real-time location data collected by sonar and laser.

**FPGA – Image De-compressor Hardware Implementation** Nov 2015

- Implemented a 4-stage robust '.mic8' image de-compressor in FPGA verified by software model.
- Be able to comfortably design and implement multi-state Digital Systems.
- Completed the project with perfect score and excellent evaluation.

**Personal Webpage** (http://bwwyyy.github.io/philip-bao/) Dec 2014

- Designed a personal webpage and hosted on Github Pages.
- Used JavaScript for web interaction, and Bootstrap's CSS templates to improve the front-end interface.
- Gained experience in web designing and Git version control system.

## EDUCATION

**McMaster University, B.Eng Electrical and Computer Engineering** (Co-op)

2013 – 2018(expected)

- 4.0/4.0 GPA
- Relative courses: Software Development, Algorithm & Data Structure, Digital System Design, Machine Learning

## AWARDS

**Provost's Honour Roll Medal** –Perfect 4.0 Sessional Average 2016

**Kudsia Family Scholarship** –Top of the Computer Engineering Program 2016