Philip (Weiyuan) Bao

www.linkedin.com/in/philipbao

Unit 7, 68 King St E, Hamilton, ON, Canada, L8N 1A6
1-(905)-962-6966 | baow@mcmaster.ca

SUMMARY

- Software: C, C++, Java, Python, SQL, MongoDB, Assembly language
- Hardware: System Verilog, HDL, PSpice
- Web Development: HTML/CSS, JavaScript, AngularJS, AJAX, jQuery, Jinja2, Bootstrap
- Tools: Matlab, Android Studio, Microsoft Visual Studio, Bash, Vim, Git, Sublime, Atom, ModelSim
- OS: Linux, Windows, OS X
- Able to deliver **clean, high performance & reusable** code with OOP
- Self-motivated, solid problem solving skills, strong ability of self-learning and time management
- Enjoy working as a team player as well as independently

WORK EXPERIENCE

Mobile Application Developer, Coop May 2015 – Aug 2015
BlackBerry Inc., Ottawa, ON, Canada

Developed and debugged 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 the search performance and helped the team to reduce the total search time to **3 seconds**. Optimized some search categories' performance by **30%**. Participated in **agile** software develop process and used project tracking system like **JIRA** and continuous integration tools like **Jenkins** server. Completed the work term with an **outstanding** evaluation.

PROJECTS

2D Robot User Interface Design Nov 2015

Designed a 2D robot user interface based on PlayerStage Platform(http://playerstage.sourceforge.net/) with C++ to let the user easily control the robot to do various kinds of objectives such as moving along a path, avoiding obstacles, navigating to some specific coordinates or interacting with other 'Player' robots. Gained hands-on experience in object oriented design and Spiral software development process. Basic knowledge gained about robotics software and control system design.

FPGA – Image De-compressor Hardware Implementation Nov 2015

Implemented '.mic8' image de-compressor in FPGA. The design performed Dequantization, Inverse Signal Transform, Interpolation and Colorspace Conversion to losslessly decode compressed data. Be able to comfortably design, implement and debug Digital Systems. Completed the project with perfect score and excellent evaluation. (Outline: https://github.com/bwwyyy/Digital-Systems-Design--2015/)

Sound Analyzer Apr 2015

Designed a multi-stage Sound Analyzer which get the real-time sound input from a microphone, amplify the signal with a hard-wired amplifier circuit, perform ADC with a microcontroller, and transfer the digital data to PC using serial communication. (https://github.com/bwwyyy/ADC_for_MicroController)

Personal Webpage Dec 2014

Designed a personal webpage and hosted on Github Pages. Used JavaScript for web interaction. Used Bootstrap's CSS templates to improve the front-end interface. Gained experience in web designing and Git version control system. (http://bwwyyy.github.io/philip-bao/)

Tower of the Sorcerer V2.0 Apr 2014

Designed a 2D RPG-like game with Python. Used Py-game library to render the player interface and enhance user experience. (https://github.com/bwwyyy/Tower-of-the-Sorcerer-V2.0)

EDUCATION

McMaster University, B.Eng Electrical and Computer Engineering (Co-op)
2013 – 2018(expected)

- 3.97/4.0 Cumulative GPA
- Relative courses: Software Development, Algorithm & Data Structure, Digital System Design, Machine Learning

AWARDS

The Dr. Harry Lyman Hooker Scholarships -Awarded to the top 10% of students in engineering Apr 2015