

EDUCATION

THE HONG KONG POLYTECHNIC UNIVERSITY

BENG IN ELECTRONIC AND
INFORMATION ENGINEERING
Feb 2013 - Jun 2017 (Expected)
Hong Kong
Cum. GPA: 3.87 / 4.0

BS IN APPLIED BIOLOGY WITH BIOTECHNOLOGY

Sep 2012 - Feb 2013
Hong Kong

UNIVERSITY OF WATERLOO ENGINEERING EXCHANGE PROGRAM

Canada

LINKS

Github:// [yswhynot](#)
LinkedIn:// [sha-yi-128031a8](#)

COURSEWORK

THE HONG KONG POLYTECHNIC UNIVERSITY

Calculus (A+) Linear Algebra (A)
Probability (A) Circuit Analysis (A)
Computer Programming C++ (A)
Digital Signal Processing (A)

COURSERA

Algorithms: Design and Analysis
Control of Mobile Robots

SKILLS

PROGRAMMING

Over 5000 lines:

C++ • JavaScript • CSS

Over 1000 lines:

Python • Java • PHP • C • Matlab • \LaTeX

Familiar:

Arduino • Hadoop • OpenCV • MySQL

Matlab Simulink • Android

OTHERS

Hardware

Circuit design • PCB fabrication

Software

AutoCAD • Solidworks

LANGUAGES

Chinese (Mandarin) • Chinese
(Cantonese) • English • Japanese

INTERNSHIP

MICROSOFT | SOFTWARE ENGINEERING INTERNSHIP

July 2015 - Dec 2015 | Beijing, China

- Worked at **Cloud and Enterprise division, Platform and Tools group**
- Developed distributed web crawling system with popular open-source crawlers including Nutch and Scrapy
- Integrated the crawling system with Hadoop and HBase
- Developed Android Bluetooth application and conducted backend programming with Python, interacting with MongoDB

RAVENTECH | SOFTWARE ENGINEERING INTERNSHIP

Feb 2016 - Mar 2016 | Beijing, China

- Worked with the Web Development team and developed the official website: <http://www.raventech.com>
- Frontend development with ejs, CSS3, javascript, and backend development with Node.js, with Express framework
- Implemented svg web animations in RavenTech Labs

RESEARCH

CARNEGIE MELLON UNIVERSITY | SUMMER RESEARCH

Robotics Institute Summer Scholar | Supervisor: Prof. Howie Choset

June 2016 - Aug 2016 | Pittsburgh, PA

- Worked with **Chaohui Gong** and **Prof. Howie Choset** at the Biorobotics Lab
- Built Visual Odometry system for indoor localization
- Made use of ORB-SLAM for implementing the SLAM system, taking input from Real-earth LIDAR system as map initialization

THE HONG KONG POLYTECHNIC UNIVERSITY | FINAL YEAR PROJECT

Supervisor: Prof. Chao Lu & Plugtech Precision Systems Ltd.

Sep 2016 - May 2017 (Expected) | Hong Kong

- Worked with **Prof. Chao lu** and **Plugtech Precision Systems Ltd.** in developing a Book Returning Robot (named Bookle) in library environment
- The robot is supposed to scan books, localize itself in the library and put the returned book back to its original place
- Responsible for all software implementation including: LIDAR localization, Gazebo simulation, path planning, and object avoidance

AWARDS

- 2015 **HKSAR Government Scholarship (80,000 HKD / year)** for 2013, 2014, 2015
- 2015 **Best GPA Award** for 2014, 2015 (Top 3 of 80)
- 2013 The Professional Validation Council of Hong Kong Industries Scholarship
- 2013 Hall Residences with Outstanding Contribution (3 of 250)
- 2011 First Award in National Olympiad in **Mathematics** in Provinces (Top 0.1%)

ACTIVITIES

- 2014 Voluntary Teacher in Yunnan Province, China
- 2014 Organizing Committee of Enlighten Project of breaking Guinness Record of the most electricity generated in 24 hours by cycling
- 2014 Voluntary Services in Yogyakarta, Indonesia
- 2013 Organizing Committee of Non-local Students' Orientation Week
- 2013 Publication Secretary of Chinese Mainland Students' Association, HKPUSU