Sophia Li

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justsophie.com

EDUCATION

FRANKLIN W. OLIN COLLEGE OF ENGINEERING **Needham, MA**
Bachelor of Science Candidate, Robotics. Class of 2017 *GPA: 3.70*
- Selected Prev. Classes: Software Systems, Fund. Computer Science, Discrete Math, Mechanical Dynamics
- Course Assistant: Software Design, Computational Robotics, Computer Architecture

PROFESSIONAL EXPERIENCE

Olin College Robotics Lab **Needham, MA**
Research Assistant *Feb 2014 – present*
- Edwin, intuitive co-worker robots (current project)
  - Using Robotic Operating System (ROS) and Tkinter, wrote a package that allows easy setup and operation of poses and behaviors for an ST-R17 robotic arm, nicknamed "Edwin"
  - Used OpenCV to give Edwin the ability to play tic-tac-toe with a human operator using marker and paper
- Jimmy: Intel 20th Century Robots
  - Used ROS to write packages that allow general human robot interaction including face tracking, speech recognition, and posture generation
- Olin Trans-Atlantic Robot Tuna
  - Used OpenCV to create an underwater navigation system that uses structured light and QR codes for localization and object avoidance

Apple Inc. **Cupertino, CA**
Camera Testing and Validation Intern *May 2015 – Aug 2015*
- Wrote software for LED integrating sphere for automating various camera validation tests
- Wrote a bash script for automating iPhone/iPad image capture/download

Senior Capstone Program in Engineering (SCOPE) **Needham, MA**
Locus Robotics Team, Hired Student Assistant *Jan 2016 – May 2016*
- Writing movement package for UR10 robot arm for collaboration with human operators in factory setting
Boeing Team, Hired Student Assistant *March 2015 – May 2015*
- Wrote indoor localization code for mobile robots using 2D fiducials

PERSONAL PROJECTS

WALL-E
- Used OpenNI and NiTE to create a code infrastructure for gesture/posture recognition and the associated robotic responses to simulate the movie WALL-E robot as a personal interest project
- Implemented code infrastructure on mechanical platform to build mobile and reactive WALL-E. Demoed WALL-E to the delight of many elementary students, demonstrating achievement of convincing likeness to the movie

S&R Stationery (Web Store)
- Selling niche imported stationery goods as a practice in entrepreneurship
- Learning from interactions with Chinese sellers to better Chinese language skills, and negotiations with online bloggers and social media to improve marketing skills

ADDITIONAL SKILLS

- Experienced with Python, C++, OpenCV and various ROS packages for use in computer vision, indoor navigation
- Experienced with micro-controller C for developing a Controller Area Network API for "Research in Electric Vehicles" club and use of Arbotix boards in research
- Experienced with Ubuntu Linux
- Fluent in spoken Mandarin Chinese, professional fluency in French
- Plays acoustic guitar, violin, and piano. Also likes to bake.

Thanks for reading, have a nice day!