

ZHIYANG LIU

✉ 105 Peterborough St., Boston, MA 02115 · ☎ 617-373-0968
✉ liu.zhiya@husky.neu.edu · in Zhiyang Liu · e crisliu7.github.io
Available May 2018 - December 2018

🎓 EDUCATION

Northeastern University Boston, MA Expected May 2019
Master of Science in Computer Engineering GPA: 4.0/4.0
Courses: Machine Learning and Pattern Recognition, Computer Vision, Robotics Sensing&Navigation, GPU Programming, Fundamentals of Computer Engineering(Algorithms)

Beijing University of Posts and Telecommunications(BUPT) Beijing, China Aug 2013 – June 2017
Bachelor of Engineering in Computer and Information Engineering GPA: 3.5/4.0
Courses: C++ Programming, Data Structures, Script Programming, Software Testing, Web Application Design and Development, Embedded Operating System, Linear Algebra, Probability Theory and Mathematical Statistics, Digital Signal Processing, Fundamentals of Information Theory, Computer Networks, Pattern Recognition and Applications

⚙️ TECHNICAL SKILLS

- **Programming Languages:** C/C++, C#, Python, Java, PHP, JavaScript, Matlab, SQL, Bash
- **Development:** Computer Vision, ROS Development, MySQL & SQL Server, CUDA Programming, Web Development

👤 INTERNSHIPS

PricewaterhouseCoopers China Beijing, China Mar 2017 – June 2017
C#, Python, SQL Server, Tableau, MDX, Bayes Classifier

- Processed the multidimensional financial data on SQL Server. Used C# to build analytical add-ins for Excel.
- Participated in database structure optimization. Used NumPy to do data prediction.

Systems Engineering Research Institute, CSSC Beijing, China Jul 2016 – Aug 2016
C++, Qt

- Used C++ to develop the control system on board. Used Qt to design the GUI of the software.
- Designed the communication protocol, including intra-ship communication and inter-ship communication.

🔧 PROJECTS

Computer Vision Project Northeastern University Sept 2017 – Dec 2017
Matlab, Target tracker, Motion Detection

- Applied derivative filter and Optical Flow method to detect motions in a sequence of pictures.
- Aligned the images in a mosaic by detecting SIFT features. Reconstructed a 3D scene by uncalibrated stereo rectification.
- Applied Circulant Matrix tracker with occlusion detection(improved by Hankel Matrix) to track the target.

Tester for HCHO Measurement Innovation & Entrepreneurship Program, BUPT Nov 2015 – May 2016
Lua, Android, NodeMCU, Alibaba Cloud, MQTT

- Led a 3-member team, designing a Intelligent and Portable Tester for Formaldehyde Concentration Measuring.
- Developed MCU. Programmed a system for the data transmission between sensors and chips, chips and cloud servers.

Instant Messenger BUPT Jul 2016
Python, PyQt, MQTT

- Developed an Instant Messenger based on MQTT protocol with Python. Used Qt as the GUI framework.
- Realized text, selfie, audio, video compression and transmission, and real-time conversation with very low latency.

Course Management System BUPT Nov 2016 – Dec 2016
PHP, MySQL, JavaScript, BootStrap, Alibaba Cloud

- Provided registration, course search, courses adding and dropping , grades updating, grade search and announcement sending for student and faculty. Set an administrator who can create, access, update or delete any user's account.

3D Reconstruction ANT Lab, BUPT May 2016 – Jul 2016
C++, Android, OpenGL ES

- Assisted in developing an APP with the function of 3D reconstruction of the human face. Applied LSD-SLAM algorithm.

♥ MISCELLANEOUS

- Volunteered to teach in Camellia School of Kolkata and in St'Athony School of Jalpaiguri in India for 40 days.
- Led a 6-member team organizing an international volunteer program in Beijing, China.