

Xiang Li

<https://xxli.me/>

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Education

School of Electronic Information and Electrical Engineering, Shanghai Jiao Tong University (SJTU), China

Program: Master Program of Control Engineering 09/2015-03/2018

- **GPA:** 2.55/3.3
- **Degree:** Master of Engineering in Control Engineering (conferred in March 2018)
- **Core Courses:** *Image Processing; Computer Vision; Computer Graphics; Matrix Theory, etc.*

Program: Undergraduate Program of Automation 09/2011-06/2015

- **GPA:** 83/100
- **Degree:** Bachelor of Science in Engineering (conferred in June 2015)
- **Core Courses:** *C++ Program Design, Digital Image Processing Basis; Computer Control Technology; Introduction to Pattern Recognition, etc.*

Publications & Patent

International Conference on Signal and Image Processing (ICSIP, 2017) 03/2017

- First Author, Enhance Tracker's Classifier via View Morphing
- Achieved Best Presentation Award
- Full Paper: <https://xxli.me/publication/icsip17.pdf>

International Conference on Neural Information Processing (ICONIP, 2017) 06/2017

- First Author, A Point and Line Features Based Method for Disturbed Surface Motion Estimation
- Full Paper: <https://xxli.me/publication/iconip17.pdf>

Utility Model Patent 09/2016

- Universal Serial Control Touch-screen Test Device
- Description: A device called CyberDIP can touch phone/pad's screen like a human finger
- Patent No. : 2016201772460
- Inquiry: <http://cpquery.sipo.gov.cn>

Projects

C++ Python Arduino Simple Raspi Car

- An open-source solution to transform general RC car into powerful mobile platform with Raspberry Pi 3B+ even NVIDIA TX2, which is compatible for many A.I. tasks
- Features: one cradle camera; open-source SDK in both C++ and Python; control via network;
- Code: <https://github.com/LostXine/simple-raspi-car>

C++ Python Project Pi Car

- A simple mobile platform, based on Raspberry Pi 3B, for many interesting computer vision tasks
- Features: two navigation cameras; close-loop speed control; SDK in both C++ and Python;

C++ qtCyberDIP

- Windows driver for CyberDIP and screen record/replay tool; Computer can play mobile games autonomously with the help of image processing
- Features: Windows/Android/iOS screen capture; easy-to-use API; GUI;
- Code: <https://github.com/LostXine/qtCyberDIP>

C++ C# Camera Bundle

- A customized software to control cameras in IOT warehouse
- Features: abnormal movement detection; object detection by SVM; RTMP streaming; MQTT supported;

C++ FlyCapture Bundle

- A toolkit to drive Point-Grey USB camera;
- Features: auxiliary focusing; auto-exposure module; multi-camera synchronizing; GUI;
- Code: <https://github.com/LostXine/flyCaptureBundle>

C++ Tracking with cradle camera

- Guiding cradle camera to tracking vehicles or any other targets.
- Trackers: STC; CT; TLD;
- Features: PELCO-D supported; GUI;

C++ Triangulation and visualization

- A combination of triangulation and filtering aimed to measure the distance of road sign by using mono image sequences and gyroscope;
- Code: <https://github.com/LostXine/visualTriangulation>

Internship

Beijing Falcon Image Technologies Co., Ltd

03/2018-08/2019

Software engineer

- Responsible for designing SLAM and navigation algorithm on self-driving car;
- Designed self-driving routine system and GUI in ROS framework;

Hubei Cheng Shi Electronic Business Co., Ltd

03/2016-03/2018

IOT software engineer

- Responsible for designing hardware structure of video monitoring system for three IOT warehouses;
- Designed Camera Bundle with C++ and C#;
- Designed related software on embedded systems like Raspberry Pi;

Honors & Awards

- * Outstanding Graduates in Shanghai 03/2018
- * National Scholarship for Graduate Students 11/2017
- * Outstanding Graduate of SJTU 05/2015

Extracurricular Activities

- * Teaching assistant in the lecture *Basis and Practice of Artificial Intelligent* 07/2018
- * Representative in culture exchange in Georgia Institute of Technology (23 days) 07/2017
- * Received offer to be a volunteer in 2016 Rio Olympic Games 07/2016
- * Teaching assistant in the lecture *Digital Image Processing Basis* 09/2015-01/2016
09/2016-01/2017
- * Instructor in graduation projects and innovative designs for undergraduate students 09/2015-03/2018
- * Volunteer in Shanghai International Marathon 11/2012
11/2013
- * Head of Student Union Propaganda Department, SEIEE in SJTU 09/2012-09/2013

Interests

- * Static & RC model crafting
- * Piano