

# ZHOUYINGCHENG LIAO

## CONTACT INFORMATION

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## RESEARCH INTERESTS

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My research interests are in the area of computer vision, deep learning. I did research on object detection and face recognition before. Currently, I am also interested in various topics in computer vision and robotics (e.g., 3D vision, reinforcement learning), intending to do research in a specific topic in the future.

## EDUCATION

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**Shanghai Jiao Tong University** Sep, 2015 - Present  
*Undergraduate Student*

- School of Cyber Security
- School of Electronic Information and Electrical Engineering
- Overall GPA: 87.6/100

## RESEARCH EXPERIENCE

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**Shanghai Jiao Tong University** Apr, 2017 - Present  
*Undergraduate Researcher*

- Advisor: Prof. [Bingbing Ni](#)
- Face detection, face recognition
- Object detection
- Self-supervised learning

## PUBLICATIONS

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**Uniface: A Unified Network for Face Detection and Recognition** [\[slide\]](#)  
*Accepted by the 24th International Conference on Pattern Recognition. **ICPR 2018***

- **Zhouyingcheng Liao**, Peng Zhou, Bingbing Ni
- A bottom-up/top-down structure is adopted to combine face detection and recognition
- An attention mechanism is adopted to replace face alignment
- A single-network model, i.e. Uniface network is proposed which achieves the accuracy of 99.0% on LFW

**Live Face Verification with Multiple Instantialized Local Homographic Parameterization**  
*Accepted by the 27th International Joint Conference on Artificial Intelligence. **IJCAI 2018***

- Chen Lin, Bingbing Ni, **Zhouyingcheng Liao**, Peng Zhou and Jianguo Hu
- A model which could classify live facial sequence and recorded facial sequence is proposed
- Due to local homography property of recorded facial sequence, a transformation network is embedded in the model
- Each image is divided into several patches and multiple instance learning is applied

## PROJECTS

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### A simple Windows ftp client/server based on Qt

[\[link\]](#)

- Course project of *Computer Network*
- Most common commands including USER, PASS, SYST, FEAT, PWD, TYPE, PASV, LIST, NLST, CWD, CDUP, MDTM, SITE, QUIT, STOR, DELE, RMD, RNFO, RNT0, MKD are implemented

### SCM line-tracking car based on computer vision

[\[link\]](#)

- I served as group leader and wrote all codes
- The computer constantly captures the line and the car by a camera
- The frames are processed by OpenCV to calculate relative position of the car to the line
- The computer controls the SCM car through bluetooth

## AWARDS

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### MCM/ICM 2017 Problem E Meritorious Winner

Feb, 2017

- Zhouyingcheng Liao, Ziping Liu and Qiucheng Wu, Advisor: Fan Wu

### 31<sup>st</sup> Chinese Physics Olympiad (Jiangxi Province) First Prize

Sep, 2014

- Rank: 21<sup>st</sup>

## SKILLS

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<b>Programming Language</b>	Python 2/3
	C/C++
	Verilog
	Tex
<b>Deep Learning Library</b>	MXNet
	Pytorch
	Tensorflow