# ZHOUYINGCHENG LIAO(廖周应成)

## CONTACT INFORMATION


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## RESEARCH INTERESTS

My research interests are in the area of computer vision, deep learning. I did research on object detecion and face recognization before. Currently, I am working on human skin mesh reconstruction which could be combined with pose estimation.

## EDUCATION

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

*Undergraduate Student*

- Major: Information security
- School of Eletronic Information and Electrical Engineering

## RESEARCH EXPERIENCE

**Shanghai Jiao Tong University** Apr, 2017 - June, 2018

*Undergraduate Researcher*

- Advisor: Prof. Bingbing Ni
- Face recognition, face detection
- Object detection
- Self-supervised learning

**SenseTime Research** July, 2018 - Present

*Research Intern*

- Pose estimation
- Human skin mesh reconstruction

## PUBLICATIONS

**Uniface: A Unified Network for Face Detection and Recognition** [paper][poster]

*Accepted by the 24th International Conference on Pattern Recognition.* ***ICPR 2018***

- **Zhouyingcheng Liao**, Peng Zhou, Tailong Wu and Bingbing Ni

- A bottom-up/top-down structure is adopted to combine face detection and recognization
- 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 [paper]

*Accepted by the 27th International Joint Conference on Artificial Intelligence.* ***IJCAI 2018***

- Chen Lin, **Zhouyingcheng Liao**, Peng Zhou, Jianguo Hu and Bingbing Ni
- 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

## UNDER-REVIEW PAPERS

### Learning to Fuse - A Noise Prediction Framework for Denoising Monte Carlo Rendering Images

*Submitted to Pacific Graphics 2018*

- **Zhouyingcheng Liao***, Yiheng Zhang* and Lizhuang Ma (* denotes equal contribution)
- A smoothing network that predicts pixel-wise denoising kernels
- A sharpening network that directly predicts each denoised pixel
- A mask network that learns to fuse above two outputs to form the final output

## AWARDS

### MCM/ICM 2017 Problem E Meritorious Winner — Feb, 2017

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

### $31^{st}$ Chinese Physics Olympiad (Jiangxi Province) First Prize — Sep, 2014

- Rank: $21^{st}$

## SKILLS

| | |
|---|---|
| **Programming Language** | Python<br>C/C++<br>HTML/CSS<br>Verilog |
| **Deep learning framework** | TensorFlow<br>MxNet<br>PyTorch |