

# XIJIE HUANG

Shanghai Jiao Tong University, 800 Dongchuan Rd. Minhang, Shanghai, China . 200240  
otaku\_huang@sjtu.edu.cn / huangxijie1108@gmail.com [HomePage](#)

## EDUCATION

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### Shanghai Jiao Tong University

*Sept 2016 - Present*

Undergraduate, School of Electronics Information and Electrical Engineering

Overall GPA: 89.40/100 (3.82/4.3) Ranking: 2/55

Advisors: [Prof.Cewu Lu](#), Machine Vision and Intelligence Group, SJTU

[Prof.Manhua Liu](#), Department of Instrument Science and Engineering, SJTU

### University of California, Los Angeles

*June 2019 - Sept 2019*

CSST (Cross-disciplinary Scholars in Science Technology) Program

Advisors: [Prof.Mani B. Srivastava](#), Department of ECE & CS, University of California, Los Angeles

## TECHNICAL STRENGTHS

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<b>Languages</b>	Python, MATLAB, C, C++, Java, HTML
<b>Framework</b>	TensorFlow, Keras, Caffe, PyTorch

## RESEARCH INTERESTS

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My research interests lie in the general area of machine learning, particularly in deep learning, security and privacy, application in computer vision and internet of things.

## RESEARCH/PROJECT EXPERIENCE

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### IIoT Research Center, Department of Electrical Engineering

*June 2017 - Sept 2017*

*Undergraduate Research Assistance*

- Analyzing the information of social network to build connections profile of users
- Optimizing *jieba* word segmentation framework to improve its accuracy and efficiency

### Machine Vision and Intelligence Group

*Sept 2017 - Present*

*Undergraduate Research Assistance*

- Researching in computer vision & robotic, particularly in human-object interaction detection.
- Proposing [Transferable Interactiveness Network](#) to tackle the imbalance in distribution in human-object interaction problem. Our method outperforms the state-of-the-art methods by 2.38, 3.06, and 2.17 mAP on three Default category sets on HICO-DET, 4.0 and 3.4 mAP on V-COCO
- Building the state-of-the-art dataset of human-object interaction **HAKE** [[Website](#)]. HAKE provides elaborate and abundant body part state labels for human instances in a large scale of images and videos.
- One [paper](#) accepted in CVPR2019, one [paper](#) on arxiv (co-author)

### Fingerprint Group, Department of Instrument Engineering

*Feb 2019 - Present*

*Undergraduate Research Assistance*

- Designing Generative Adversarial Network to enhance latent fingerprint
- Optimizing the fingerprint recognition algorithm based on enhanced results

### Networked Embedded Systems Laboratory (NESL), UCLA

*June 2019 - Present*

*Undergraduate Research Assistance (CSST Program)*

- Detecting whether a neural network has been compromised by malware that causes the model to produce incorrect results when the input includes some special trigger for the backdoor.

- Prospecting **NeuronInspect**, using visual interpretability technique to effectively detect trojan backdoors in deep neural network without restoring the trigger and any backdoor samples.

## PUBLICATIONS[\[MY GOOGLE SCHOLAR\]](#)

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### **Transferable Interactiveness Knowledge for Human-Object Interaction Detection**

*Yonglu Li, Siyuan Zhou, **Xijie Huang**, Liang Xu, Ze Ma, Haoshu Fang, Cewu Lu* *CVPR2019*

### **HAKE: Human Activity Knowledge Engine**

*Yong-Lu Li, Liang Xu, **Xijie Huang**, Xinpeng Liu, Ze Ma, Mingyang Chen, Shiyi Wang, Hao-Shu Fang, Cewu Lu* *arxiv Preprint*

## ACADEMIC ACHIEVEMENTS

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National Scholarship (Top 2% students), Ministry of Education of P.R.China. 2017.

A Class Scholarship (Top 2% students), Shanghai Jiao Tong University. 2017

Endress+Hauser Scholarship, Endress+Hauser Inc. 2018.

B Class Scholarship (Top 10% students), Shanghai Jiao Tong University. 2018

Second Prize in China Undergraduate Mathematical Contest in Modeling, Shanghai Division. 2017

[Meritorious Winner](#) in Mathematical Contest In Modeling & Interdisciplinary Contest In Modeling, Comap. 2018

First Prize in [TIDY UP MY ROOM CHALLENGE — ICRA 2018](#) (Member of Kaibot Team) 2018

CSST Scholarship (USD \$5,343) University of California, Los Angeles 2019

Best Presentation Award (UCLA-CSST) 2019

## STANDARD TEST

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**TOEFL** 100 (Reading:27 Listening:27 Speaking:23 Writing:23)

**GRE** 320 (Q170+V150) + 3.0(AW)