

# HAOSHU FANG

Computer Science, SEIEE, Shanghai Jiao Tong University  
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## EDUCATION

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**Shanghai Jiao Tong University, China (SJTU)**

*Sep. 2013 - Jun. 2018 (expected)*

School of Electronic Information and Electrical Engineering (SEIEE)

*Bachelor of Science* in Computer Science and Engineering

## PUBLICATIONS

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**RMPE: Regional Multi-Person Pose Estimation** [[arXiv](#)]

**Hao-Shu Fang**, Shuqin Xie, Yu-Wing Tai and Cewu Lu

*Proc. ICCV, 2017.*

**Knowledge-guided Pose Grammar Machine for 3D Human Pose Estimation** [[arXiv](#)]

**Hao-Shu Fang\***, Yuanlu Xu\*, Wenguan Wang, Xiaobai Liu and Song-Chun Zhu

*Proc. AAAI, 2018.*

**Pairwise Body-Part Attention for Recognizing Human-Object-Interactions**

**Hao-Shu Fang**, Yu-Wing Tai and Cewu Lu

*Under Review, 2018.*

**Leveraging Group Prediction for Supervising Human Part Parsing**

**Hao-Shu Fang**, Guansong Lu, Xiaolin Fang, Yu-Wing Tai and Cewu Lu

*Under Review, 2018.*

## RESEARCH EXPERIENCES

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**Center for Vision, Cognition, Learning and Autonomy, UCLA**

*Visiting Undergraduate Research Intern*

*Jun. 2017 - Oct. 2017*

- Advisor: Prof. [Song-Chun Zhu](#)
- Integrating Grammar Model for 3D Human Pose Estimation

**YouTu Lab, Tencent**

*Research Intern*

*Feb. 2017 - Jun. 2017*

- Advisor: Prof. [Yu-Wing Tai](#)
- Recognizing Human-Object-Interaction

**Machine Vision and Intelligence Group, Shanghai Jiao Tong University**

*Research Assistant*

*Jul. 2016 - Present*

- Advisor: Prof. [Cewu Lu](#)
- Multi-person Pose Estimation, Human Parsing, Deep Reinforcement Learning for Robotics

## INTERNSHIPS

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**SenseTime, Shenzhen**

*Research & Engineer Intern*

*Jun. 2016 - Dec. 2016*

- Object Classification & Detection, Scene Classification, Model Compression, Pose Estimation

## SELECTED PROJECTS

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**Regional Multi-Person Pose Estimation**

*Open-source to facilitate further research.*

*Dec. 2016*

- Implemented a two-step framework which consists of Symmetric Spatial Transformer Network (SSTN), Parametric Pose Non-Maximum-Suppression (NMS), and Pose-Guided Proposals Generator (PGPG) to handle inaccurate bounding boxes and redundant detections. Achieved 17 mAP higher and 300 times faster than the best system at that time.
- It is the first open source system that can achieve 70 mAP on MPII dataset, and it takes only 1.5s to process an image.
- In COCO 2017 Keypoint Challenge, the proposed framework achieved 69.6 mAP on test-dev set, which is **8 mAP higher** than the champion from last year.

### Automatic Video Colorization

CS362 , 95/100

Fall, 2016

- Implemented a video colorization program in Matlab, which could load and segment the video, extract different level of features for each frame(i.e., Patch Feature, DAISY Feature and Semantic Feature), color each frame and smooth the colored video.

### Line Follower Robot

EI228 , 92/100

Fall, 2015

- Wrote a program for environment perception and robot controlling. I used a MSP430 chip with HC06 bluetooth module to control the robot and the front camera of laptop to perceive the environment. The laptop made decisions according to its perception and sent commands to the chip, which controlled the torque of different motors.

And some other projects like [Simple Search Engine](#), [Hand Sensing Game Controller](#), [Small-C Compiler](#), etc.

### SELECTED AWARDS

<a href="#">COCO Keypoints Challenge 2017</a> @ ICCV 2017 workshop, 6th place,	<i>Leader &amp; core developer</i>	<i>Oct. 2017</i>
<a href="#">Look Into Person (LIP) Challenge</a> @ CVPR 2017 workshop, 3rd place,	<i>Independent participant</i>	<i>Apr. 2017</i>
<a href="#">Microsoft Beauty of Programming (BOP) 2016</a> , Best Demo Prize(Top 0.1%)		<i>May 2016</i>
Microsoft Penta Hackathon 2015, our project got funding by MSC,	<i>Leader</i>	<i>Nov. 2015</i>
Intel Parallel Application Challenge 2015, 4th among 200		<i>Nov. 2015</i>
Academic Excellence Scholarship, SJTU		<i>Oct. 2016</i>

### TEACHING

Teaching Assistant, CS348 Computer Vision

Fall, 2017

### TECHNICAL SKILLS

Programming: C/C++, Python, Lua, Java, Verilog HDL  
 Professional Tools: Torch, TensorFlow, Caffe, MATLAB, L<sup>A</sup>T<sub>E</sub>X

### MISCELLANEOUS

#### Global Volunteer, Ukraine

Summer, 2014

- Spent 2 months in Ukraine as an international teacher at a summer camp, with the aim of giving the kids there international perspective and understanding of different cultures.

Hobbies: Cooking, Sports(Tennis)