# Yunhao Ge

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## **Education**

#### **University of Southern California**

Los Angeles, USA

PhD, ilab, Computer Science Department

Aug. 2019 - Present

- Annenberg Graduate Fellowship at University of Southern California
- · Advisor: Prof. Laurent Itti

#### **Shanghai Jiao Tong University**

Shanghai, China

MASTER OF SCIENCE, Robotics and Intelligence Group, Robotics Institute

Sep. 2016 - June 2019

- Overall Ranking 6th/210 | GPA: Mechanical 3.43/4 | Computer science courses 3.80/4
- Advisor: Prof. Weixin Yan & Prof. Hongtao Lu & Prof. Yanzheng zhao
- · Honor: Outstanding Graduate Thesis Award

**Shandong University** 

Jinan, China

**BACHELOR OF ENGINEERING**, Control Engineering and Mechatronics

Sep. 2012 - June 2016

- Overall Ranking 1st/66 | GPA: Overall: 86.08/100 | Major: 93.38/100
- · Honor: Outstanding Undergraduate Thesis Award

## Research Interests

My research interests lie in Computer vision, Robotics and General Al. Currently, I am focusing on simulating baby learning (Reasoning, Attention, Imagination) by using various learning algorithms (Representation Learning, Adversarial Learning, Meta Learning, GNN, Reinforcement Learning, etc.).

## **Publications**

## [1] Pose Augmentation: Class-agnostic Object Pose Transformation for Object Recognition

Yunhao Ge, Jiaping Zhao, Laurent Itti 🖹 PDF 🗘 Code

European Conference on Computer Vision (ECCV), 2020.

#### [2] Unpaired MR to CT Synthesis with Explicit Structural Constrained Adversarial Learning

**Yunhao Ge**\*, Dongming Wei\*, Zhong Xue, Qian Wang, Xiang Zhou, Yiqiang Zhan, Shu Liao (\*=equal contribution) PDF Code *IEEE International Symposium on Biomedical Imaging (ISBI)*, 2019.

## [3] Synthesis and inpainting-based MR-CT registration for image-guided thermal ablation of liver tumors

Dongming Wei, Sahar Ahmad, Jiayu Huo, Wen Peng, **Yunhao Ge**, Zhong Xue, Pew-Thian Yap, Wentao Li, Dinggang Shen, Qian Wang PDF

International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI), 2019.

#### [4] Unpaired Whole-body MR to CT Synthesis with Correlation Coefficient Constrained Adversarial Learning

**Yunhao Ge**, Zhong Xue, Tuoyu Cao, Shu Liao PDF Code SPIE-Medical Imaging, 2019 [oral]

#### [5] A Real-time Gesture Prediction System Using Neural Networks and Multimodal Fusion based on Data Glove

Yunhao Ge, Bin Li, Weixin Yan, Yanzheng Zhao PDF Paper Link

IEEE International Conference on Advanced Computational Intelligence (ICACI), 2018. [oral]

#### [6] HH-Net: Image driven microscope fast auto-focus with deep neural network

Yunhao Ge, Bin Li, Yanzheng Zhao, Weixin Yan PDF

International Conference on Biomedical Engineering and Technology (ICBET), 2019. [oral]

#### [7] Melanoma Segmentation and Classification in Clinical Images Using Deep Learning

Yunhao Ge, Bin Li, Weixin Yan PDF Paper Link

ACM International Conference on Machine Learning and Computing (ICMLC), 2018. [oral]

#### [8] Benign and Malignant Mammographic Image Classification Based on Convolutional Neural Networks

Bin Li, **Yunhao Ge**, Yanzheng Zhao, Enguang Guan, Weixin Yan PDF Paper Link

ACM International Conference on Machine Learning and Computing (ICMLC), 2018. [oral]

#### [9] Effect of Mechanical Error on Dual-Wedge Laser Scanning System and Error Correction

Yunhao Ge, Jihao Liu, Fenfen Xue, Enguang Guan, Weixin Yan, Yanzheng Zhao PDF Paper Link Applied Optics (Appl. Opt. IF:1.79) 57, pp. 6047-6054, 2018

The first prize, 9th International college students Ican innovation and entrepreneurship competition

## Honors & Awards

#### **SCHOLARSHIPS**

National Scholarship (Graduate), top graduate nationwide	Nov. 2017	
National Scholarship (UnderGraduate), top undergraduate nationwide	Nov. 2015	
KaiYuan Motivational Scholarship, top 0.5% in Shanghai Jiao Tong University	Apr. 2018	
Presidential Scholarship, top 0.2% in Shandong University	Nov. 2015	
BaoGang Excellent student Scholarship, 4 Places per year at Shandong University	Nov. 2015	
First Prize Scholarship, three-year continuous	2013-2015	
CONTESTS		
The first prize, 2017 ROBOMASTER The World's Leading Robotics Competition	4 2017	
(Responsible for the design of electronic control in robotics)	Aug. 2017	
Rank 1st (preliminary competition), Tianchi: Precision medical competition-Artificial Intelligence Aided genetic	Doc. 2017	

## Patent & software \_

risk prediction of diabetes \*\*OPred-diabetes

#### Pulmonary Nodular Assisted Detection System Based on AI(V1.0)

Software Jan. 2018

Dec. 2017

Oct. 2015

Bin Li, Yunhao Ge 2018SR037095

## A two-layer barrier free parking robotics based on bionic manipulator

Patent for invention

**Yunhao Ge**, Shangze Yang, Zheng Zhang, Weixin Yan, Yanzheng Zhao CN201610712048

Jan. 2017

2