

# Qizhe Zhang

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Turing Class (Honor Class), School of Electronics Engineering and

Computer Science, Peking University

GPA: 3.725, 10/81



## RESEARCH EXPERIENCE

### • Research Lab

BLV Lab - Shanghang Zhang, National Engineering Research Center of Visual Technology, Peking University  
Autonomous Driving, Computational Neuroscience  
March 2022 onwards

### • Research Practice

GCV Lab, BIGAI - Baoxiong Jia, Frontier Research Center, Beijing Institute for General Artificial Intelligence  
Embodied Cognition, Multi-modal Learning  
October 2021 to February 2022  
EPIC Lab - He Wang, Center on Frontiers of Computing Studies, Peking University  
Semi-supervised/Self-supervised Learning  
February 2021 to September 2021

### • Research Rotation

daGAME - Xiaotie Deng, Center on Frontiers of Computing Studies, Peking University  
Algorithmic Game Theory  
VCL - Baoquan Chen, Center on Frontiers of Computing Studies, Peking University  
Computer Vision  
March 2021 to June 2021

## EDUCATION

### • University, Artificial Intelligence

Turing Class (AI) (Honor Class), EECS, PKU  
2019 onwards

### • Middle School

Middle School affiliated to NPU  
2013 to 2019

## AWARDS

### • The Third Prize of PKU-CPC

2021

### • The Second Prize of China Southeast Mathematical Olympiad

2018

### • The First Prize of China North Star of Hope Mathematical Invitational Tournament

2017

## SKILLS

### • Programming Language & Library

C/C++, Python, Java, JavaScript, MATLAB, PyTorch, Tensorflow, OpenCV, Detectron2

### • Research Fields

Image Classification, Object Detection, Semantic Segmentation, Semi-supervised/Self-supervised Learning, Contrastive Learning, Multi-modal Learning

### • Project Management

GitHub, Slurm, Google Cloud Platform, HUAWEI Cloud Platform, Overleaf

## PUBLICATIONS

### • Unsupervised Spike Depth Estimation via Cross-modality Cross-domain Knowledge Transfer

[github.com/Theia-4869/BiCross] (private)  
AAAI 2023 (in submission)

## PROJECTS

### • 2DIoUMatch

[github.com/Theia-4869/2DIoUMatch] (private)  
A new method of 2D semi-supervised object detection with IoU estimation (to be submitted to TPAMI)  
Python, PyTorch, Detectron2

### • MCL

[github.com/Theia-4869/MCL] (private)  
A new pretrain method of contrastive learning by multi-cluster task  
Python, PyTorch

### • EMA-and-Ensemble-Lip-Networks

[github.com/Theia-4869/EMA-and-Ensemble-Lip-Networks]  
A new method of boosting certified  $l_\infty$ -dist robustness with EMA and model ensemble  
C++, Python, PyTorch

## INTERESTS

Computer  
Vision

Deep  
Learning

Autonomous  
Driving