

# BO LIU

## PERSONAL DATA

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RESEARCH INTERESTS: ZERO-SHOT LEARNING, DOMAIN GENERALIZATION, GENERATIVE MODEL  
ADDRESS | PHONE: 95 ZHONGGUANCUN EAST ROAD, BEIJING, CHINA | +86 15600083933  
EMAIL | HOMEPAGE: [bo.liu@nlpr.ia.ac.cn](mailto:bo.liu@nlpr.ia.ac.cn) | <https://flywithcloud.github.io>

## EDUCATION

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SEP 2017-  
*Current* | PHD DEGREE IN PATTERN RECOGNITION AND INTELLIGENT SYSTEM | ADVISOR: PROF. ZHANYI HU&QIULEI DONG  
NLPR, INSTITUTE OF AUTOMATION, CHINESE ACADEMY OF SCIENCES, BEIJING

SEP 2013-  
JUL 2017 | UNDERGRADUATE DEGREE IN COMMUNICATION ENGINEERING | GPA: 4.11/5.00  
WUHAN UNIVERSITY OF TECHNOLOGY, WUHAN

## ACADEMIC EXPERIENCE

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SEP 2018-  
*Current* | **Zero-Shot Learning | Institute of Automation, Beijing**  
BIO-INSPIRED/SEMI-SUPERVISED/GENERATIVE/META-LEARNING METHODS TO TACKLE DOMAIN SHIFT PROBLEM IN ZERO-SHOT LEARNING.

JAN 2020  
*Current* | **Domain Shift Problem in 3D Point Clouds | Institute of Automation, Beijing**  
ZERO-SHOT LEARNING INSPIRED METHODS TO SOLVE DOMAIN SHIFT PROBLEM IN 3D SCENES.

JUN 2019-  
SEP 2019 | **Bio-Inspired Representation Learning | Institute of Neuroscience, Shanghai**  
INVESTIGATE REPRESENTATION MECHANISM IN VISUAL CORTEX FOR DEEP REPRESENTATION LEARNING.

FEB 2017-  
DEC 2018 | **Bio-Inspired Understanding of Deep Neural Network | Institute of Automation, Beijing**  
ANALYZE STATISTICS OF DNN' NEURAL RESPONSES WITH TOOLS FROM NEUROSCIENCE.

## PUBLICATIONS

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**Liu Bo**, QIULEI DONG, ZHANYI HU, HARDNESS SAMPLING FOR SELF-TRAINING BASED TRANSDUCTIVE ZERO-SHOT LEARNING. ACCEPTED BY CVPR2021

**Liu Bo**, QIULEI DONG, ZHANYI HU, ZERO-SHOT LEARNING FROM ADVERSARIAL FEATURE RESIDUAL TO COMPACT VISUAL FEATURE. ACCEPTED BY AAAI2020

SHUANG DENG, **Liu Bo**, QIULEI DONG, ZHANYI HU, ROTATION TRANSFORMATION NETWORK: LEARNING VIEW-INVARIANT POINT CLOUD FOR CLASSIFICATION AND SEGMENTATION. ACCEPTED BY ICME2021

QIULEI DONG, **Liu Bo**, ZHANYI HU, NON-UNIQUENESS PHENOMENON OF OBJECT REPRESENTATION IN MODELING IT CORTEX BY DEEP CONVOLUTIONAL NEURAL NETWORK (DCNN). ACCEPTED BY FRONT. COMPUT. NEUROSCI, 2020 (ADVISOR AS 1ST AUTHOR)

QIULEI DONG, **Liu Bo**, ZHANYI HU, COMPARISON OF IT NEURAL RESPONSE STATISTICS WITH SIMULATIONS. ACCEPTED BY FRONT. COMPUT. NEUROSCI, 2017 (ADVISOR AS 1ST AUTHOR)

**Liu Bo**, QIULEI DONG, ZHANYI HU, AN ITERATIVE CO-TRAINING TRANSDUCTIVE FRAMEWORK FOR ZERO SHOT LEARNING. UNDER REVIEW IN TIP

**Liu Bo**, QIULEI DONG, ZHANYI HU, SEMANTIC-DIVERSITY TRANSFER NETWORK FOR GENERALIZED ZERO-SHOT LEARNING VIA INNER DISAGREEMENT BASED OOD DETECTOR. UNDER REVIEW IN KBS

**Liu Bo**, QIULEI DONG, ZHANYI HU, SEGMENTING 3D HYBRID SCENES VIA ZERO-SHOT LEARNING. UNDER REVIEW IN IJCAI2021

**Liu Bo**, QIULEI DONG, SHUANG DENG, ZHANYI HU, LANGUAGE-LEVEL SEMANTICS CONDITIONED 3D POINT CLOUD SEGMENTATION. UNDER REVIEW IN ICCV2021

## SKILLS AND OTHERS

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**Skill:** PYTORCH, TENSORFLOW, SKLEARN, PYTHON, MATLAB, UBUNTU, LATEX, FLUENT ENGLISH READING/WRITING  
**Service:** PC MEMBER OF AAAI2021, WORKSHOP VOLUNTEER OF ICPR2018  
**Honor:** MERIT STUDENT (2013-2017,2019), EXCELLENT GRADUATE OF WUT, NATION/SCHOOL-LEVEL SCHOLARSHIP