Shuai Liao

Email: <u>leo.shine2010@gmail.com</u> Personal page: <u>https://leoshine.github.io/</u>

Education

University of Amsterdam (UvA)

Amsterdam, The Netherlands

Ph.D. in Computer vision and Deep learning

Supervisor: Cees Snoek, Efstratios Gavves

Renmin University of China (RUC)

Beijing, China

MSc. in Computer Science 2012.9 – 2015.6

University of Electronic Science and Technology of China (UESTC)

Chengdu, China

B.E. in Software Engineering 2008.9 – 2012.7

Research Experience

Qualcomm AI Research, Netherlands

Amsterdam, The
Netherlands

Research Intern with video perception team

2020.6 – 2020.10

The University of Queensland, Australia Brisbane, Australia

Research Intern with Prof. Heng Tao SHEN 2014.4 – 2014.10

Research Interests

3D computer vision: Viewpoint/6DOF pose estimation; Surface & Depth estimation; 3D object detection.

Image Classification: Multi-label classification; Zero-shot learning; Adversarial robustness; Credibility.

Video understanding: Optical flow estimation; Video object detection/segmentation.

Selected Publications

- [1] "Quasibinary Classifier for Images with Zero and Multiple Labels" (ICPR 2020) *Shuai Liao*, Efstratios Gavves, ChangYong Oh, Cees Snoek
- [2] "Spherical Regression: Learning Viewpoints, Surface Normals and 3D Rotations on n-Spheres" (CVPR 2019) Shuai Liao, Efstratios Gavves, Cees Snoek
- [3] "Searching and Matching Texture-free 3D Shapes in Images" (ICMR 2018) Shuai Liao, Efstratios Gavves, Cees Snoek
- [4] "Zero-shot image tagging by hierarchical semantic embedding", (SIGIR 2015) Xirong Li, *Shuai Liao*, Weiyu Lan, Xiaoyong Du, Gang Yang
- [5] "Tag Features for Geo-Aware Image Classification", (TMM 2015) *Shuai Liao*, Xirong Li, Heng Tao Shen, Yang Yang, Xiaoyong Du
- [6] "Building geo-aware tag features for image classification", (ICME 2014) (Oral) *Shuai Liao*, Xirong Li, Xiaoxu Wang, Xiaoyong Du

Patents

Learning geometric differentials for matching 3D models to objects in a 2D image, (US Patent 2020) Shuai Liao, Efstratios Gavves, Cornelis Gerardus Maria Snoek

Coordinate estimation on n-spheres with spherical regression, (US Patent 2020) Shuai Liao, Efstratios Gavves, Cornelis Gerardus Maria Snoek

Services & Teaching & Training

Reviewer for NeurIPS, ICLR, CVPR, ECCV, AAAI, ACM-MM, TOMM, ICMR.

Teaching:

- Computer Vision Master course, 2016;
- Applied Machine Learning Master course 2018, 2019;
- Behavior-Based Robotics Bachelor course, 2018;
- Master thesis supervision on *ship pose estimation at port of Rotterdam*.

Chair of VIS Lab Seminars, University of Amsterdam, 2018;

Summer schools:

- International Computer Vision Summer School, Sicily 2017.
- Machine Learning Summer School, Madrid 2018.
- Deep learning and Bayesian methods Summer school, Moscow 2019.

Awards & Honors

- 2015 Excellent Graduate of Renmin Uni. of China. (Top 3%)
- 2014 Graduate Student Scholarship at Renmin Uni. of China.
- 2013 The National Scholarship at Renmin Uni. of China. (Top 3%)
- 2012 Outstanding Graduate Student Award at RUC.

Proficiencies & Skills

Programming: Python, C++, C, CUDA, OpenGL, GLSL, JavaScript.

Deep learning frame work: PyTorch, Caffe.

Others: OpenCV, PCL, Linux programming experience, etc.