

# Yaoyao Liu

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## BIOGRAPHY

I am a Ph.D. student at Max Planck Institute for Informatics, advised by Prof. Dr. Bernt Schiele and Prof. Qianru Sun. From June 2018 to August 2019, I was a research intern at National University of Singapore, working with Prof. Tat-Seng Chua and Prof. Qianru Sun. I obtained my bachelor degree from Tianjin University. My research lies at the intersection of computer vision and machine learning – with a special focus on building intelligent visual systems that are continual and data-efficient. My research interests include few-shot learning, class-incremental learning, semi-supervised learning, and image generation.

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## EDUCATION AND EXPERIENCE

### Max Planck Institute for Informatics

Ph.D. Student, Advisors: Prof. Dr. Bernt Schiele and Prof. Qianru Sun

Department of Computer Vision and Machine Learning

Feb 2020 - Present

### National University of Singapore

Research Intern, Advisors: Prof. Tat-Seng Chua and Prof. Qianru Sun

School of Computing

Jun 2018 - Sep 2019

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## PUBLICATIONS

- **RMM: Reinforced Memory Management for Class-Incremental Learning**  
Yaoyao Liu, Bernt Schiele, Qianru Sun  
Thirty-fifth Conference on Neural Information Processing Systems (**NeurIPS**), 2021.
- **Adaptive Aggregation Networks for Class-Incremental Learning**  
Yaoyao Liu, Bernt Schiele, Qianru Sun  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2021.
- **Epoch-wise Empirical Bayes for Few-shot Learning**  
Yaoyao Liu, Bernt Schiele, Qianru Sun  
European Conference on Computer Vision (**ECCV**), 2020.
- **Meta-Transfer Learning through Hard Tasks**  
Qianru Sun, \* Yaoyao Liu, \* Zhaozheng Chen, Tat-Seng Chua, Bernt Schiele (\*=equal contribution)  
IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2020.
- **Mnemonics Training: Multi-Class Incremental Learning without Forgetting**  
Yaoyao Liu, An-An Liu, Yuting Su, Bernt Schiele, Qianru Sun  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2020.
- **Learning to Self-Train for Semi-Supervised Few-Shot Classification**  
Xinzhe Li, Qianru Sun, Yaoyao Liu, Shibao Zheng, Qin Zhou, Tat-Seng Chua, Bernt Schiele  
Thirty-third Conference on Neural Information Processing Systems (**NeurIPS**), 2019.
- **Meta-Transfer Learning for Few-Shot Learning**  
Qianru Sun, \* Yaoyao Liu, \* Tat-Seng Chua, Bernt Schiele (\*=equal contribution)  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2019.

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## PROFESSIONAL SERVICES

- **Conference Co-organizer:** ACM MM Asia 2020
- **Conference Senior Program Committee Member:** IJCAI 2021
- **Conference Reviewers:** CVPR 2021-2022, ICCV 2021, NeurIPS 2020-2021, ICML 2021, ICLR 2022, AAI 2021-2022, IJCAI 2021-2022, ACM MM 2021, ACML 2021
- **Conference Volunteers:** ICLR 2021, AAI 2021, NeurIPS 2020
- **Journal Reviewers:** IEEE TPAMI, IJCV, IEEE TIP, IEEE TMM, Neural Networks, Machine Learning, Information Processing and Management, Neural Processing Letters, Multimedia Tools and Applications, IEEE Access, Chinese Journal of Computers

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## SKILLS

- **Python, TensorFlow, PyTorch, MatLab**  
More than **1.5k** stars on GitHub: <https://github.com/yaoyao-liu>

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## LANGUAGES

- **English** (fluent), **Chinese** (native)