# YONGQIN XIAN

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#### RESEARCH EXPERIENCE

ETH Zurich August 2021 - Now Zürich, Switzerland Post-doctoral researcher with Prof. Luc Van Gool · Few-shot object detection Max Planck Institute for Informatics August 2020 - July 2021 Post-doctoral researcher with Prof. Bernt Schiele and Prof. Zeynep Akata Saarbrücken, Germany · Learning from limited supervision for computer vision tasks Facebook AI Research January 2019 - April 2019 Research Intern with Prof. Lorenzo Torresani Cambridge, USA Few-shot video understanding Max Planck Institute for Informatics January 2016 - July 2020 PhD condidate with Prof. Bernt Schiele and Prof. Zeynep Akata Saarbrücken, Germany · Zero-shot and few-shot learning Machine Learning Group of Saarland University April 2014 - October 2014 Research Assistant with Prof. Matthias Hein Saarbrücken, Germany · Motion segmentation with hypergraph cut **EDUCATION** Max Planck Institute Informatics, Germany 2016-2020 PhD (summa cum laude) in Computer Science Saarland University, Germany 2013-2016 MSc (Honors degree) in Computer Science 2009-2013 Beijing Institute of Technology, China BSc in Computer Science AWARDS

CVPR, 2020
Chinese Government Award for Outstanding Self-Financed Students Abroad CSC, 2018
Qualcomm Innovation Fellowship Finalist Qualcomm, Amsterdam, 2018
Master Degree with Honors Saarland University, Germany, 2016
Graduate Fellowship Saarland University, Germany, 2013-15
Excellent Student Scholarship Beijing Institute of Technology, China, 2009-13

#### REPRESENTATIVE TEN PUBLICATIONS

Generalized Few-Shot Video Classification with Video Retrieval and Feature Generation
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

Yongqin Xian, Bruno Korbar, Matthijs Douze, Lorenzo Torresani, Bernt Schiele, Zeynep Akata

| Distilling Audio-Visual Knowledge by Compositional Contrastive Lear IEEE Computer Vision and Pattern Recognition (CVPR) Conference Yanbei Chen, Yongqin Xian, Almut Sophia Koepke, Zeynep Akata                           | rning 2021  |
|---|---|
| Learning Graph Embeddings for Compositional Zero-shot Learning IEEE Computer Vision and Pattern Recognition (CVPR) Conference Muhammad Ferjad Naeem, Yongqin Xian, Federico Tombari, Zeynep Akata                         | 2021  |
| Attribute Prototype Network for Zero-Shot Learning Conference on Neural Information Processing Systems (NeurIPS) Wenjia Xu, Yongqin Xian, Jiuniu Wang, Bernt Schiele, Zeynep Akata  | 2020  |
| f-VAEGAN-D2: A Feature Generating Framework for Any-Shot Learn IEEE Computer Vision and Pattern Recognition (CVPR) Conference Yongqin Xian, Saurabh Sharma, Bernt Schiele, Zeynep Akata                                   | ning 2019<br>Long Beach, CA                                       |
| Semantic Projection Network for Zero- and Few-Label Semantic Segmentie Research IEEE Computer Vision and Pattern Recognition (CVPR) Conference Yongqin Xian*, Subhabrata Choudhury*, Yang He, Bernt Schiele, Zeynep Akata | Long Beach, CA  |
| Zero-Shot Learning – A Comprehensive Evaluation of the Good, the Hamber IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)  Yongqin Xian, Christoph H. Lampert, Bernt Schiele, Zeynep Akata           | Bad and the Ugly<br>2018  |
| Feature Generating Networks for Zero-Shot Learning IEEE Computer Vision and Pattern Recognition (CVPR) Conference Yongqin Xian, Tobias Lorenz, Bernt Schiele, Zeynep Akata  | 2018<br>Salt Lake City, UT  |
| Zero-Shot Learning - The Good, the Bad and the Ugly IEEE Computer Vision and Pattern Recognition (CVPR) Conference Yongqin Xian, Bernt Schiele, Zeynep Akata  | 2017<br>HL, Hawaii  |
| Latent Embeddings for Zero-shot Classification IEEE Computer Vision and Pattern Recognition (CVPR) Conference Yongqin Xian, Zeynep Akata, Gaurav Sharma, Quynh Nguyen, Matthias Hein, Bernt                               | $\begin{array}{c} 2016 \\ Las\ Vegas,\ NV \\ \end{array}$ Schiele |
| OTHER PUBLICATIONS  |   |
| Prototype-based Incremental Few-Shot Semantic Segmentation British Machine Vision Conference (BMVC) Fabio Cermelli, Massimiliano Mancini, Yongqin Xian, Zeynep Akata, Barbara Caputo                                      | 2021  |
| Open World Compositional Zero-Shot Learning IEEE Computer Vision and Pattern Recognition (CVPR) Conference Massimiliano Mancini*, Muhammad Ferjad Naeem*, Yongqin Xian, Zeynep Akata                                      | 2021  |
| (SP) <sup>2</sup> Net for Generalized Zero-Label Semantic Segmentation  DAGM German Conference on Pattern Recognition (GCPR)  Anurag Das, Yongqin Xian, Yang He, Bernt Schiele, Zeynep Akata                              | 2021  |
| A Closer Look at Self-training for Zero-Label Semantic Segmentation CVPR 2021 Workshop on Learning with Limited and Imperfect Data Giuseppe Pastore, Fabio Cermelli, Yongqin Xian, Massimiliano Mancini, Zeynep Akat.     | 2021<br>a, Barbara Caputo   |
| Analyzing the Dependency of ConvNets on Spatial Information The German Conference on Pattern Recognition (GCPR) Yue Fan, Yongqin Xian, Max Maria Losch, Bernt Schiele   | 2020  |

ECCV Workshop on Imbalanced Problem in Computer Vision

Yongqin Xian, Bruno Korbar, Matthijs Douze, Bernt Schiele, Zeynep Akata, Lorenzo Torresani

# TEACHING AND TRAINING EXPERIENCE

| TA for Machine Learning Course (Prof. Matthias Hein), Saarland University   | Oct 2015 - Mar 2016 |
|---|---------------------|
| Invited Student at Google's 2nd Computer Vision Summit, Zurich, Switzerland | Sep. 2018           |
| Computer Vision Summer School, Sicily, Italy                                | July 2018           |
| Machine Learning Summer School, MPI Intelligent Systems, Germany            | July 2015           |
| Software Engineer Intern at Oracle Inc., Beijing, China                     | June-Dec. 2012      |

## SUPERVISION EXPERIENCE

| Master Thesis of Anurag Das (now PhD student at MPII)                            | 2021 |
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| Master Thesis of Muhammad Ferjad Naeem (now PhD student at ETH)                  | 2020 |
| Research Immersion Lab of Miaoran Zhang (now PhD student at Saarland University) | 2019 |
| Master Thesis of Yue Fan (now PhD student at MPII)                               | 2019 |
| Master Thesis of Subhabrata Choudhury (now PhD student at Oxford University)     | 2018 |
| Bachelor Thesis of Tobias Lorenz (now PhD student at CISPA)                      | 2017 |

## ACADEMIC ACTIVITIES

| Reviewer in International Conference on Learning Representations (ICLR)       | 2019-21 |
|---|---------|
| Reviewer in International Conference on Machine Learning (ICML)               | 2020    |
| Reviewer in Conference on Neural Information Processing Systems (NIPS)        | 2018-21 |
| Reviewer in IEEE Computer Vision and Pattern Recognition Conference (CVPR)    | 2018-21 |
| Reviewer in Transactions on Pattern Analysis and Machine Intelligence (TPAMI) | 2017-21 |

# SPOKEN LANGUAGES

Chinese Maternal English Proficiency German Beginner