# Shen Yan

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## Highlights

My general interests lie in machine learning and computer vision. Currently, I focus on representation learning and architecture search, mostly in the context of visual recognition.

## Education

**Michigan State University**, East Lansing, USA — Jan 2019 - Sep 2022 (expected)
Ph.D., Computer Science, 3.8/4.0

**RWTH Aachen University**, Aachen, Germany — Oct 2018
M.S., Computer Engineering, 1.2/5.0 (*excellent*)

**Xidian University**, Xi'an, China — July 2015
B.S., Telecommunications Engineering, 3.82/4.0

## Award

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|---|---|
| Top Reviewers of ICML '20 | Sep 2020 |
| 4th Place Winner of NeurIPS '19 Google MicroNet Challenge | Nov 2019 |
| ICCV '19 Neural Architects Workshop Best Paper Award Nominee | Oct 2019 |
| MSU Graduate Office Fellowship | Jan 2019 |
| World Finalist, Kaggle Data Science Game, Paris | Sep 2016 |
| Summer School Exchange Student, Tsinghua University | Aug 2015 |
| Meritorious Winner, International Mathematical Contest In Modeling (MCM) | May 2014 |
| First Prize Scholarship, Xidian University | Sep 2012, 2013 |

## Professional Experiences

**Research Intern** — Summer 2022
Google Brain, Mountain View, USA

**Student Researcher** — Fall 2021
Google Research, Mountain View, USA

**Research Intern** — Summer 2021
Google Research, Mountain View, USA

**Research Intern** — Spring 2021
Abacus.AI, San Francisco, USA

**Applied Machine Learning Intern** — Summer 2020
ByteDance, Mountain View, USA

**Research Intern** — Summer 2019
Bosch Research, Sunnyvale, USA

**Research Intern** — Summer 2017
eBay Research, Aachen, Germany

**Software Engineering Intern** — Summer 2016
Nuance Communications, Aachen, Germany

## Publications

[11] **Shen Yan**, Xuehan Xiong, Anurag Arnab, Zhichao Lu, Mi Zhang, Chen Sun, Cordelia Schmid. "Multiview Transformers for Video Recognition". In *Conference on Computer Vision and Pattern Recognition (CVPR' 22)*, New Orleans, USA, June 2022.

[10] Yu Zheng, Zhi Zhang, **Shen Yan**, Mi Zhang. "Deep AutoAugment". In *International Conference on Learning Representations (ICLR' 22)*, Online, April 2022.

[9] **Shen Yan***, Colin White*, Yash Savani, Frank Hutter. "NAS-Bench-x11 and the Power of Learning Curves". In *Conference on Neural Information Processing Systems (NeurIPS' 21)*, Online, Dec 2021.

[8] **Shen Yan**, Kaiqiang Song, Fei Liu, Mi Zhang. "CATE: Computation-aware Neural Architecture Encoding with Transformers". In *International Conference on Machine Learning (ICML' 21)*, Online, July 2021. **[Long Presentation]**

[7] **Shen Yan**, Yu Zheng, Wei Ao, Xiao Zeng, Mi Zhang. "Does Unsupervised Architecture Representation Learning Help Neural Architecture Search?". In *Conference on Neural Information Processing Systems (NeurIPS' 20)*, Online, Dec 2020.

[6] Taojiannan Yang, Sijie Zhu, **Shen Yan**, Mi Zhang, Andrew Willis, Chen Chen. "MutualNet: Adaptive ConvNet via Mutual Learning from Network Width and Resolution". In *European Conference on Computer Vision (ECCV '20)*, Online, Aug 2020. **[Oral Presentation]**

[5] **Shen Yan**, Huan Song, Nanxiang Li, Lincan Zou, Liu Ren. "Improve Unsupervised Domain Adaptation with Mixup Training". In *arXiv:2001.00677.*, Cornell University Library, January 2020.

[4] **Shen Yan**, Biyi Fang, Faen Zhang, Yu Zheng, Xiao Zeng, Hui Xu, Mi Zhang. "HM-NAS: Efficient Neural Architecture Search via Hierarchical Masking". In the Proceedings of *IEEE International Conference on Computer Vision (ICCV '19) Neural Architects Workshop*, Seoul, Korea, October 2019. **[Best Paper Award Nominee]**

[3] **Shen Yan**, Leonard Dahlmann, Pavel Petrushkov, Sanjika Hewavitharana, Shahram Khadivi. "Word-based Domain Adaptation for Neural Machine Translation". In the Proceedings of *The International Workshop on Spoken Language Translation (IWSLT '18)*, Bruges, Belgium, October 2018. **[Oral Presentation]**

[2] Abin Jose, **Shen Yan**, Iris Heisterklaus. "Binary Hashing Using Siamese Neural Networks". In the Proceedings of *IEEE International Conference on Image Processing (ICIP '17)*, Beijing, China, September 2017.

[1] Harald Hanselmann, **Shen Yan**, Hermann Ney. "Deep Fisher Faces". In the Proceedings of *The British Machine Vision Conference (BMVC '17)*, London, UK, September 2017.

## Patents

[1] "System and Method for Unsupervised Domain Adaptation with Mixup Training", US20210201159A1, Robert Bosch GmbH.

## Selected Media Coverage

MSU Today [**Science & Technology**]. 'MSU Team focused on AI earns recognition at Google MicroNet Challenge" Jan 2020

JiQiZhiXin. "ICCV Workshop Best Paper Nominee: Efficient Neural Architecture Search via Hierarchical Masking" Oct 2019

## Professional Services

**Program Committee**
ICML 2021 Workshop on Automated Machine Learning (AutoML)
ICLR 2021 Workshop on Neural Architecture Search (NAS)

**Journal Reviewer**
TMLR 2022

**Conference Reviewer**
ICML 2020-2022, NeurIPS 2020-2021, ICLR 2021-2022, CVPR 2021-2022, ICCV 2021, ECCV 2022

## Skills

**Programming Language**
Python/Perl, C/C++, Go, Lua, Bash/Shell, Make, HTML.

**Language**
English, German, Chinese.

**Frameworks**
Jax, Pytorch, Tensorflow, NumPy, Pandas, SciPy, Caffe, Moses, OpenCV, Scikit-Learn, OpenGL, Git.

**Systems**
Linux, OSX.