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, 1.2/1.0

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

Award

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

Experience

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
TikTok, 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.

Media Coverage

Synced Review. "MSU & AWS Present DeepAA: Fully Automated Data Augmentation Search That Rivals Human-Enhanced Approaches" Mar 2022

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

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 2020-2022, 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.