Ligeng Zhu

◇ (+1)646-450-192 ◇ ligeng.zhu@gmail.com ◇ https://lzhu.me

Education

Massachusetts Institute of Technology, USA
Visiting student in Department of Electrical Engineering and Computer Science

Simon Fraser University, Canada
Bachelor in Department of Computing Science

Zhejiang University, China
Bachelor in Department of Computer Science.

Research Interests

Scalable & Efficient Machine Learning Design Automation Machine Learning Systems

Publications Google Scholar (140 citations)

Conferences

1. **Distributed Training Across the World.**
   Ligeng Zhu, Yao Lu, Yujun Lin, Song Han
   Manuscript, under submission.

2. **Deep Leakage from Gradients.**
   Ligeng Zhu, Zhijian Liu, Song Han
   In *Proceeding of 33rd Conference on Neural Information Processing Systems (NeurIPS)*, 2019.

3. **Proxylessnas: Direct neural architecture search on target task and hardware.**
   Han Cai, Ligeng Zhu, Song Han.
   In *Proceedings of the 7th International Conference on Learning Representations (ICLR)*. 2019.
   111 citations / 849 stars on Github / Integrated into PyTorch Hubs

4. **Sparsely Aggregated Convolutional Networks.**
   Ligeng Zhu, Ruizhi Deng, Michael Maire, Greg Mori, Ping Tan.
   In *Proceedings of the 15th European Conference on Computer Vision (ECCV)*. 2018.

5. **Does Colour Really Matter? Evaluation via Object Classification.**
   Brian Funt, Ligeng Zhu.
   In *Proceedings of the 27th Color and Imaging Conference (CIC)*. 2018.

6. **Colorizing Color Images.**
   Ligeng Zhu, Brian Funt.
   In *Proceedings of the 30th Human Vision and Electronic Imaging (HVEI)*. 2018.

7. **Colorizing Color Images.**
   Luwei Yang, Ligen Zhu, Yichen Wei, Shuang Liang, Ping Tan.
   In *Proceedings of the 27th British Machine Vision Conference (BMVC)*. 2016.

Journals

1. **AutoML for Architecting Efficient and Specialized Neural Networks**
   Song Han, Han Cai, Ligeng Zhu, Ji Lin, Kuan Wang, Zhijian Liu, Yujun Lin.
   In *the IEEE International Symposium on Microarchitecture (Micro)*. 2019.

2. **Small Object Sensitive Segmentation of Urban Street Scene With Spatial Adjacency Between Object Classes**
   Ligeng Zhu*, Dazhou Guo*, Yuhang Lu, Hongkai Yu, Song Wang
   In *the IEEE Transactions on Image Processing (TIP)*. 2019.

Experiences

Intel Corporation Nov 2019 - Now
Data Scientist@Artificial Intelligence Products Group *Santa Clara, CA, USA*

Massachusetts Institute of Technology Sept 2018 - Aug 2019
Research Assistant@Prof. Song Han's Group *Cambridge, MA, USA*

· Secure (NIPS 19) and scalable (ICLR 20, in submission) federated learning.
· Efficient neural architecture search for hardware specialization (ICLR 19).

Sensetime Inc Jan 2018 - Aug 2018
Research Intern@Video Segmentation Group *Beijing, China*

Research on color stability of videos, and modified winograd to accelerated fix-point inference.

Simon Fraser University Sep 2015 - Aug 2018
Research Assistant *Vancouver, BC, Canada*

· With Prof. Brian Funt at Color Vision Lab
  - Automatic white-balancing via CNN (HVEI 18)
  - Color Important Analysis (CIC 18)
· With Prof. Ping Tan at Graphic and Vision Lab
  - Deep learning for simultaneously localization and recognition (BMVC 16).

TuSimple Inc May 2017 - Aug 2017
Research Intern@Self-driving Group *San Diego, CA, USA*

· (Patent): A system method for drivable road surface generation using multimodal sensor data
· (Patent): A system method for detecting taillight signals of vehicles via convolutional neural network

Projects

Most of my research stand on the shoulders of giants named "open-source". Therefore, I embrace open-source as much as possible. According to gitstar ranking, I rank 3379^{th} among all github users.

PyTorch-OpCounter (1.1k stars)	ProxylessNAS (853 stars)	Efficient-PyTorch (334 stars)
pytorch-memonger (206 stars)	SparseNet (121 stars)	fast-artistic-videos (96 stars)

For details, please refer to my GitHub. Beside personal projects, I also contribute to

MXNet, PyTorch, TVM, Horovod, mmdetection.

Awards

- **Open Source Scholarship**, Simon Fraser University 2017
- **Academic Scholarship**, Simon Fraser University 2017
- **ACM-ICPC Contest Silver Medal**, Zhejiang University 2015
- **Mathematical Contest In Modeling First Prize**, Zhejiang University 2015

Academic Services

Review(ed) papers for: CVPR 20 (going to) / AAAI 20 / Neruips 19 / ICCV 19 / CVPR 19