Yogesh Balaji

CONTACT INFORMATION

3425 Tulane Drive, Apt 21,
Hyattsville,
MD 20783

yogesh@umd.edu
http://www.cs.umd.edu/~yogesh/

EDUCATION

University of Maryland, College Park **August 2016 - Present**

PhD. in Computer Science
Advisors: Prof. Rama Chellappa, Prof. Soheil Feizi
GPA: 3.94/4

Indian Institute of Technology Madras, India **August 2012 - July 2016**

B.Tech., Electrical Engineering
Minor: Operations Research
GPA: 9.57/10

PUBLICATIONS

Yogesh Balaji[1], Mohammadmahdi Sajedi[1], Neha Kalibhat, Mucong Ding, Dominik Stoger, Mahdi Soltanolkotabi, Soheil Feizi, "Understanding Over-parameterization in Generative Adversarial Networks", To appear in *International Conference on Learning Representations (**ICLR**), 2021*

Yogesh Balaji, Rama Chellappa and Soheil Feizi, "Robust Optimal Transport with Applications in Generative Modeling and Domain Adaptation", *Conference on Neural Information Processing Systems (**NeurIPS**), 2020*

Prithvijit Chattopadhyay, **Yogesh Balaji**, and Judy Hoffman, "Learning to Balance Specificity and Invariance for In and Out of Domain Generalization", *European Conference on Computer Vision (**ECCV**), 2020*

Luyu Yang, **Yogesh Balaji**, Ser-Nam Lim, and Abhinav Shrivastava, "Adversarial Sample Selection for Multi-Source Domain Adaptation", *European Conference on Computer Vision (**ECCV**), 2020*

Phillip Pope[1], **Yogesh Balaji**[1], and Soheil Feizi, "Adversarial Robustness of Flow-Based Generative Models", *International Conference on Artificial Intelligence and Statistics (**AISTATS**) 2020*

Neha Kalibhat, **Yogesh Balaji**, and Soheil Feizi, "Winning Lottery Tickets in Deep Generative Models", To appear in *AAAI Conference on Artificial Intelligence (**AAAI**) 2021*

Yogesh Balaji, Hamed Hassani, Rama Chellappa, and Soheil Feizi, "Entropic GANs meet VAEs: A Statistical Approach to Compute Sample Likelihoods in GANs", *International Conference on Machine Learning (**ICML**) 2019*

Yogesh Balaji, Rama Chellappa, and Soheil Feizi, "Normalized Wasserstein for Mixture Distributions With Applications in Adversarial Learning and Domain Adaptation", *International Conference on Computer Vision (**ICCV**) 2019*

Yogesh Balaji, Martin Renqiang Min, Bing Bai, Rama Chellappa, and Hans Peter Graf, "Conditional GAN with Discriminative Filter Generation for Text-to-Video Synthesis", *International Joint Conferences on Artificial Intelligence (**IJCAI**) 2019*

Swami Sankaranarayanan[1], **Yogesh Balaji**[1], Carlos D. Castillo, and Rama Chellappa, "Generate To Adapt: Aligning Domains using Generative Adversarial Networks", *Proceedings of the IEEE*

[1]First two authors contributed equally

*Conference on Computer Vision and Pattern Recognition (**CVPR**), 2018* (**Spotlight**)

Swami Sankaranarayanan[1], **Yogesh Balaji**[1], Arpit Jain, Ser Nam Lim, and Rama Chellappa, "Learning from Synthetic Data: Addressing Domain Shift for Semantic Segmentation", *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2018* (**Spotlight**)

Yogesh Balaji, Swami Sankaranarayanan, and Rama Chellappa, "MetaReg: Towards Domain Generalization using Meta-Regularization", *Conference on Neural Information Processing Systems (**NeurIPS**) 2018*

Vijay Rengarajan, **Yogesh Balaji**, and A.N. Rajagopalan, "Unrolling the Shutter: CNN to Correct Motion Distortions", *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2017* (**Oral**)

Abhijith Punnappurath, **Yogesh Balaji**, Mahesh Mohan M R and A.N.Rajagopalan, "Deep Decoupling of Defocus and Motion Blur for Dynamic Segmentation", *Proceedings of the 14th European Conference on Computer Vision (**ECCV**), 2016*

Submissions

Yogesh Balaji, Mehrdad Farajtabar, Dong Yin, Alex Mott and Ang Li, "The Effectiveness of Memory Replay in Large Scale Continual Learning ", *Under review*

Yogesh Balaji, Tom Goldstein, and Judy Hoffman, "Instance adaptive adversarial training: Improved accuracy tradeoffs in neural nets", *Under review*

Professional Experience

Deepmind, Mountain View, CA (Remote)
Research Intern **May 2020 - Oct 2020**
Mentor - Ang Li
Worked on memory-replay methods for large-scale continual learning.

Facebook AI Research, Menlo Park, CA
Research Intern **May 2019 - Aug 2019**
Mentor - Judy Hoffman
Worked on improving robustness - accuracy tradeoff in adversarial training.

NEC Laboratories America, Princeton, NJ
Intern, Machine Learning **May 2018 - Aug 2018**
Mentor - Martin Renqiang Min
Developed a system for text-conditioned video generation using Generative Adversarial Networks.

Qualcomm Research, San Diego, CA
Intern, WiFi System Team, R&D **May 2015 - July 2015**
Mentor - Aleksandar Damnjanovic
Developed MAC layer algorithms for fair coexistence of WiFi and LTE-U in unlicensed spectrum

Programming

Languages: Python, C++
Deep learning platforms: PyTorch, TensorFlow.

Achievements

- **Ann G. Wylie Dissertation Fellowship**, University of Maryland, 2020
- **Dean's Fellowship**, University of Maryland, 2016, 2017
- Finalist, **Qualcomm Innovation Fellowship**
- Finalist, **Adobe Research PhD Fellowship**

Voluntary service

Reviewer for CVPR('19, '20, '21), ICCV('19), AAAI('20, '21), ICML('20), NeurIPS('20), ICLR('21)