Syed Ashar Javed

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Education

2018 – 2019 **Carnegie Mellon University, Pittsburgh**
M.S. in Computer Vision (4.11/4.33)

2012 – 2016 **Jamia Millia Islamia, New Delhi**
B.Tech. in Computer Science (9.1/10)

Relevant Work Experience

May '19 – Aug '19 **PathAI.** Machine Learning Engineer
– Working on machine learning based methods for computational pathology.

Jan '19 – Dec '19 **Amazon Lab126.** Student Researcher (Capstone)
– Worked with Prof Michael Kaess on online stereo camera calibration for visual SLAM using factor graph optimization.

May '19 – Aug '19 **PathAI.** Machine Learning Intern
– Worked on end-to-end learning models on gigapixel images for computational histopathology.

Dec '19 – May '19 **Machine Learning Dept, CMU.** Research Assistant
– Worked with Prof Katerina Fragkiadaki on 3D probabilistic language grounding using generative models.

Mar '17 – Apr '18 **CVIT lab, IIIT Hyderabad.** Research Assistant.
– Formulated a self-supervised approach for unsupervised visual grounding of phrases and obtained state-of-art results on multiple datasets. Work presented at NeurIPS workshop 2018.
– Trained a state-of-art small obstacle segmentation model for autonomous vehicles using as few as 135 frames by exploiting structure in the road scene. Work presented at ICRA 2018.
– Formulated a Gaussian Process based synthetic data generation scheme and built an online prediction model for real-time video stabilization in virtual camera simulation.

Jun '16 – Feb '17 **Cube26.** Research Engineer
– Implemented multiple papers in the neural art domain for real-time stylization of images. Models deployed to tens of thousands of devices.
– Incorporated object-level contextual information to improve scene classification in CNNs. Work presented at CVPR 2017 workshop.
– Explored LDA and Bayesian Optimization using GP & Thomson Sampling for recommendation systems.
– Benchmarked LSTM models for spoken language identification in speech signals obtained from videos.

Jun '14 – Jul '14 **Reliance Industries.** Summer Intern
– Built a vision based fire detection system for open industrial setting.

Publications

1. Prabhudesai, M., Fish, H.-Y. T., Javed, S. A., Harley, A., Sieb, M., & Fragkiadaki, K. (2019). **Embodied Language Grounding**. *Under review*.
2. Achary, S., Poddatur, N. S., Javed, S. A., Vinjamoori, A., Gandhi, V., & Namboodiri, A. (2019). **CineFilter: Unsupervised Adaptive Filtering for Real Time Autonomous Camera Systems**. *Under review*.
3. Javed, S. A., Saxena, S., & Gandhi, V. (2018). **Learning Unsupervised Visual Grounding Through Semantic Self-Supervision**. *IJCAI 2019, NeurIPS 2018 ViGIL Workshop*.
4. Gupta, K., Javed, S. A., Gandhi, V., & Krishna, K. M. (2018). **MergeNet: A Deep Net Architecture for Small Obstacle Discovery**. *ICRA 2018*.
5. Javed, S. A. & Nelakanti, A. K. (2017). **Object-Level Context Modelling For Scene Classification with Context-CNN**. *CVPR 2017 SUN Workshop*.
6. Ahmad, M., Ahmad, F., & Javed, S. A. (2017). **Cryptanalysis of an asymmetric image cryptosystem based on synchronized unified chaotic system and CNN**. In *Icicc 2017*.

Skills

Languages Python, C, C++, Javascript, Matlab, SQL, HTML.

Tools OpenCV, Tensorflow, Theano, Keras, PyTorch, Numpy/Sklearn, Matplotlib, Django.