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

Feb '20 – Current **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 graphs.

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.
Worked with Prof Vineet Gandhi on the following problems:
– Self-supervised approach for unsupervised visual grounding of phrases with state-of-art results.
– State-of-art small obstacle segmentation model for autonomous vehicles using as few as 135 frames.
– Gaussian Process based synthetic data generation scheme and a auto-regressive model for smoothing virtual camera trajectories.

Jun '16 – Feb '17 **Cube26.** Research Engineer
– Implemented papers for real-time image stylization. Models deployed to tens of thousands of devices.
– Incorporated object-level contextual information to improve scene classification in CNNs.
– Explored LDA and Bayesian Optimization using GP & Thomson Sampling for recommendation systems.

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

Publications

- **Embodied Language Grounding with Implicit 3D Visual Feature Representations**
  CVPR 2020
  Mihir Prabhudesai, Hsiao-Yu Fish Tung, Syed Ashar Javed, Adam Harley, Maximilian Sieb, Katerina Fragkiadaki
- **CineFilter: Unsupervised Adaptive Filtering for Real Time Autonomous Camera Systems**
  Under Review
  Sudheer Achary, KL Moorthy, Syed Ashar Javed, Nikita Shravan, Vineet Gandhi, Anoop Namboodiri
- **Learning Unsupervised Visual Grounding Through Semantic Self-Supervision**
  IJCAI 2019, NeurIPS 2018 ViGIL Workshop
  Syed Ashar Javed, Shreyas Saxena, Vineet Gandhi
- **MergeNet: A Deep Net Architecture for Small Obstacle Discovery**
  ICRA 2018
  Krishnam Gupta, Syed Ashar Javed, Vineet Gandhi, K Madhava Krishna
- **Object-Level Context Modelling For Scene Classification with Context-CNN**
  CVPR Workshop 2017
  Syed Ashar Javed, Shreyas Saxena, Vineet Gandhi
- **Cryptanalysis of asymmetric image cryptosystem based on synchronized unified chaotic system**
  ICICC 2017
  Musheer Ahmad, Faiyaz Ahmad, Syed Ashar Javed

Skills

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

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