Aditya Ganeshan

Researcher, Preferred Networks Inc., Tokyo, Japan

Education

Indian Institute of Technology, Roorkee, India
Integrated Masters, Applied Mathematics, *Jul' 12 - Jul' 17*
Best Masters Dissertation Project: 10/10
Science Stream , Jawaharlal Nehru School, Bhopal, India
92% in class XII (C.B.S.E.), *May' 02 - May' 12*

Work Experience

Researcher
Preferred Networks, Inc. *From December '18*

- Paper titled **FDA: Feature Disruptive Attack** on task agnostic adversarial attacks on images accepted at **ICCV 2019**.
Link to website
- Mentored interns (in the role of a sub-mentor) for projects on deep audio processing. Draft in submission to ICASSP 2020.
- Built a Robot application prototype "FollowBot": Consisting of perception (pose-based commands, multi-person detection and tracking) and mapping system (Hector SLAM) on a real robot ROSBot.
- Built a bench-marking module for quantitative evaluation of path planning algorithms using ROS, Gazebo, and PFN's internal navigation modules.

Project Assistant
Video Analytics Lab, Indian Institute of Science *June '17 - November '18*

- Paper titled **iSPA-Net: Iterative Semantic Alignment Network** on object pose estimation in RGB images to be published in **ACM Multimedia 2018**.
Link to repository
- Paper titled **Generalizable data-free objective for crafting universal adversarial perturbations**, to be published in IEEE Transactions on **PAMI**, on generating UAP for multiple CV task.
Link to project page
- Paper Titled **Object Pose Estimation from Monocular Image using Multi-View Keypoint Correspondence** on 3D pose estimation of objects using a multi-view approach to be published in **ECCV-W 2018**.

Teaching Assistant
Video Analytics Lab, Indian Institute of Science *June '17 - March '18*

- Teaching Assistant for **DS-265: Deep Learning for Computer Vision**, at Department of Computational and Data Sciences, IISc, Bangalore.
Link to website
- Curated and presented an 11-lecture Course titled **Deep Reinforcement learning in Computer Vision** for lab members.
Link to website

Game Dev

A Special Place in Hell
BardOfCodes *June' 18*

- Created a casual projectile-shooting game with a morbid sense of humour for the Android platform.
Game on Google Playstore

Publications

Aditya Ganeshan,B. S. Vivek, R. Venkatesh Babu,
FDA: Feature Disruptive Attack.
Accepted in *International Conference on Computer Vision, 2019.*

Aditya Ganeshan*,Jogendra Nath Kundu*, Rahul M V* , R. Venkatesh Babu,
Object Pose Estimation from Monocular Image using Multi-View Keypoint Correspondence.
Accepted in *ECCV-W "Geometry Meets Deep Learning" 2018.*

Aditya Ganeshan*,Jogendra Nath Kundu*, Rahul M V*,Aditya Prakash , R. Venkatesh Babu,
iSPA-Net: Iterative Semantic Pose Alignment Network.
Accepted in *ACM International Conference on Multimedia 2018.*
Link to Arxiv

Aditya Ganeshan*, Mopuri Konda Reddy*, R. Venkatesh Babu,
Generalizable data-free objective for crafting universal adversarial perturbations.
Accepted in *IEEE Transactions on Pattern Analysis and Machine Intelligence 2018.*
Link to Arxiv

Position of Responsibility

General Secretary,
Music Section, IIT Roorkee — *May '15 - May '16*

Finance Coordinator,
Watch Out! News Agency, IIT Roorkee — *Aug'12 - Aug '15*

Github Projects

flying_furniture
Code for creating *The Flying Furniture* dataset.
render_wt_pt_proj
Code for Rendering with blender, and 3D keypoints to 2D projection.
seg_metrics_pytorch
GPU Based Segmentation Metric evaluation in *pytorch*, for *PASCAL VOC'2012.*
universal_pytorch
Batch implementation of *DeepFool*, and *Universal Adversarial Perturbations* on pytorch.
defence_against_the_dark_arts
Evaluation of various defense mechanism against various UAP generation algorithms.
pytorch_deeplab_large_fov
Implementation of *Deeplab Large FOV* for semantic segmentation on pytorch.