Aditya Ganeshan

Researcher, Preferred Networks Inc., Tokyo, Japan

Education

Indian Institute of Technology, Roorkee, India
Integrated Master of Science, Applied Mathematics, August 2012 - July 2017
Thesis Title: *Per-pixel feedback for improving semantic segmentation*
Best Master's Dissertation Project: 10/10

Professional Experience

Researcher
Preferred Networks, Inc., Japan December 2018 - *Present*

Research Assistant
Video Analytics Lab, Indian Institute of Science 2017 - November 2018

Scholarships & Awards

Winner, Deep Perception Hackathon, Machine Learning Tokyo September 2019
Winner, AutoNUE: Scene Understanding Challenge, ECCV, Germany September 2018
INSPIRE Scholarship, Indian Institute of Technology, Roorkee August 2012 - July 2017

Teaching Experience

DS-265: Deep Learning for Computer Vision
Teaching Assistant with Professor Venkatesh R. Babu June 2017 - March 2018

Reviewing

NeurIPS 2020: Neural Information Processing Systems July 2020
ECCV 2020: European Conference on Computer Vision March 2020
AAAI 2020: AAAI Conference on Artificial Intelligence December 2019

Intern Advising

Quang Nguyen: Improved one-shot model for Multiple Object Tracking Summer 2020
David Samuel: Meta-learning Extractors for Music Source Separation. Summer 2019

Journal Article

M.K. Reddy*, **A. Ganeshan***, R. V. Babu,
Generalizable data-free objective for crafting universal adversarial perturbations.
(**TPAMI'18**) *IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018.*

Conference Publications

F. Matulic, **A Ganeshan**, H. Fujiwara, D. Vogel,
Phonetroller: Visual Representations of Fingers for Precise Touch Input when using a Phone in VR.
(**CHI'21**) *ACM CHI Conference on Human Factors in Computing Systems 2021.*

D. Samuel, **A. Ganeshan**, J. Naradowsky
Meta-learning Extractors for Music Source Separation.
(**ICASSP'20**) *International Conference on Acoustics, Speech and Signal Processing 2020.*

* equal contribution

A. Ganeshan, B. S. Vivek, R. V. Babu,
FDA: Feature Disruptive Attack.
(**ICCV'19**) *International Conference on Computer Vision, 2019.*

J. N. Kundu*, **A. Ganeshan***, R. M Venkatesh*, A. Prakash , R. V. Babu,
iSPA-Net: Iterative Semantic Pose Alignment Network.
(**ACMMM'18**) *ACM International Conference on Multimedia 2018.*

Workshop Papers

J.N. Kundu*, R. M Venkatesh*, **A. Ganeshan***, R. V. Babu,
Object Pose Estimation from Monocular Image using Multi-View Keypoint Correspondence.
(**ECCV-W'18**) *"Geometry Meets Deep Learning" Workshop 2018.*

Dissertation

A. Ganeshan,
Per-Pixel Feedback for improving Semantic Segmentation.
Master's Dissertation, Indian Institute of Techonology, Roorkee, 2017.

Position of Resposibility

Member of Global Internship Committee
Preferred Networks Inc, Japan May 2019 - November 2020

General Secretary,
Music Section, IIT Roorkee May 2015 - May 2016

Finance Coordinator,
Watch Out! News Agency, IIT Roorkee August 2012 - August 2015

Side Projects

A Special Place in Hell
A casual projectile-shooting game with a morbid sense of humour.
DRL in CV
A personally curated course in Deep RL in computer vision.

GitHub Code

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 mechanisms against various UAP generation algorithms.
multi_arm_bandit
Extensible multi-arm-bandit environment implementation for *OpenAI Gym.*
pytorch_deeplab_large_fov
Implementation of *Deeplab Large FOV* for semantic segmentation on pytorch.

* equal contribution