Aditya Ganeshan

Graduate Student, Brown University

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Education

Brown University, US
Doctor of Philosophy, Computer Science — August 2021 - present

Indian Institute of Technology, Roorkee, India
Integrated Master of Science, Applied Mathematics — August 2012 - July 2017
Thesis: *Per-pixel feedback for improving semantic segmentation*

Professional Experience

Research Assistant
Brown Visual Computing Lab, Brown University — August 2021 - present

Researcher
Preferred Networks, Inc., Japan — December 2018 - May 2021

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

Scholarships & Awards & Honors

Outstanding Reviewer (top 8%), NeurIPS 2022 — June 2022
Highlighted Reviewer (top 8%), ICLR 2022 — April 2022
Winner, Deep Perception Hackathon, Machine Learning Tokyo, Japan — September 2019
Winner, AutoNUE: Scene Understanding Challenge, ECCV, Germany — September 2018
INSPIRE Scholarship, Indian Institute of Technology, Roorkee, India — 2012 - 2017

Conference Publications

Improving Unsupervised Visual Program Inference with Code Rewriting Families, ICCV'23.
A. Ganeshan, R. K. Jones, D. Ritchie.

Skill Generalization with Verbs, IROS'23.
R. Ma, L. Lam, B. A. Spiegel, **A. Ganeshan**, B. Abbatematteo, R. Patel, D. Paulius, S. Tellex, G. Konidaris.

Improving Semantic Segmentation via Cycle-consistent Video Auto-labelling, ICCV'21.
A. Ganeshan, A. Vallet, Y. Kudo, S. I. Maeda, T. Kerola, R. Ambruș, D. Park, A. Gaidon.

Phonetroller: Visual Representations of Fingers for Precise Touch Input when using a Phone in VR, CHI'21.
F. Matulic, **A. Ganeshan**, H. Fujiwara, D. Vogel.

Meta-learning Extractors for Music Source Separation, ICASSP'20.
D. Samuel, **A. Ganeshan**, J. Naradowsky.

FDA: Feature Disruptive Attack, ICCV'19.
A. Ganeshan, B. S. Vivek, R. V. Babu.

iSPA-Net: Iterative Semantic Pose Alignment Network, ACMMM'18.
J. N. Kundu*, **A. Ganeshan***, R. M Venkatesh*, A. Prakash , R. V. Babu.

* equal contribution

Journal Article	*Generalizable data-free objective for crafting universal adversarial perturbations*, TPAMI'18. M.K. Reddy*, **A. Ganeshan***, R. V. Babu.
Workshop Papers	*Object Pose Estimation from Monocular Image using Multi-View Keypoint Correspondence*, (**ECCV '18**) *"Geometry Meets Deep Learning" Workshop 2018.* J.N. Kundu*, R. M Venkatesh*, **A. Ganeshan***, R. V. Babu.
Dissertation	*Per-Pixel Feedback for improving Semantic Segmentation.* *Master's Dissertation, Indian Institute of Techonology, Roorkee, 2017.* **A. Ganeshan**.

Teaching Experience	*DS-265*: Deep Learning for Computer Vision, IISc, India *Teaching Assistant with Professor Venkatesh R. Babu*	Spring 2018
Reviewing	*IROS 2023*, *CVPR 2023*, *ICCV 2023*, *NeurIPS 2023*, *ICCV 2021*, *ICML 2021*, *ICLR 2022*, *CVPR 2022*, *NeurIPS 2022*, *AAAI 2020*, *NeurIPS 2020*, *ECCV 2020*, *CVPR 2021*	2022-2023 2021-2022 2019-2020

Service	**Volunteer** *SIGGRAPH 2023, LA, US*	August 2023
	Student Mentor *ExploreCSR, Brown University, US*	Feb 2023 - May 2023
	Study Group Leader (REU Site) *AI for computational creativity, Brown University, US*	June 2022 - July 2022
	Head Volunteer *RLDM 2022, Brown University, US*	June 2022
	Member of Global Internship Committee *Preferred Networks Inc, Japan*	May 2019 - November 2020
	General Secretary, *Music Section, IIT Roorkee, India*	May 2015 - May 2016

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 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 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