

# Aditya Ganeshan

GRADUATE STUDENT, BROWN UNIVERSITY

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EDUCATION	<b>Brown University, US</b> <i>Doctor of Philosophy, Computer Science</i>	August 2021 - present
	<b>Indian Institute of Technology, Roorkee, India</b> <i>Integrated Master of Science, Applied Mathematics</i> Thesis: <i>Per-pixel feedback for improving semantic segmentation</i>	August 2012 - July 2017

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PROFESSIONAL EXPERIENCE	<b>Research Assistant</b> <i>Brown Visual Computing Lab, Brown University</i>	August 2021 - present
	<b>Researcher</b> <i>Preferred Networks, Inc., Japan</i>	December 2018 - May 2021
	<b>Research Assistant</b> <i>Video Analytics Lab, Indian Institute of Science</i>	2017 - November 2018

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SCHOLARSHIPS & AWARDS	<i>Winner, Deep Perception Hackathon, Machine Learning Tokyo, Japan</i>	September 2019
	<i>Winner, AutoNUE: Scene Understanding Challenge, ECCV, Germany</i>	September 2018
	<i>INSPIRE Scholarship, Indian Institute of Technology, Roorkee, India</i>	2012 - 2017

TEACHING EXPERIENCE	<i>DS-265: Deep Learning for Computer Vision</i> <i>Teaching Assistant with Professor Venkatesh R. Babu</i>	June 2017 - March 2018
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REVIEWING	<i>ICCV 2021, ICML 2021, ICLR 2022, CVPR 2022, NeurIPS 2022,</i> <i>AAAI 2020, NeurIPS 2020, ECCV 2020, CVPR 2021</i>	2021-2022 2019-2020
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INTERN ADVISING	<i>Quang Nguyen: Improved one-shot model for Multiple Object Tracking</i> <i>David Samuel: Meta-learning Extractors for Music Source Separation.</i>	Summer 2020 Summer 2019
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JOURNAL ARTICLE	M.K. Reddy*, <b>A. Ganeshan*</b> , R. V. Babu, <i>Generalizable data-free objective for crafting universal adversarial perturbations.</i> (TPAMI'18) <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2018.
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CONFERENCE PUBLICATIONS	<b>A. Ganeshan</b> , A. Vallet, Y. Kudo, S. I. Maeda, T. Kerola, R. Ambrus, D. Park, A. Gaidon, <i>Improving Semantic Segmentation via Cycle-consistent Video Auto-labelling.</i> (ICCV'21) <i>International Conference on Computer Vision</i> , 2021.
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\* equal contribution

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.*

**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.*

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SERVICE	<b>Study Group Mentor (REU Site)</b> <i>AI for computational creativity, Brown University, US</i>	June 2022 - July 2022
	<b>Head Volunteer</b> <i>RLDM-22, Brown University, US</i>	June 2022
	<b>Member of Global Internship Committee</b> <i>Preferred Networks Inc, Japan</i>	May 2019 - November 2020
	<b>General Secretary,</b> <i>Music Section, IIT Roorkee, India</i>	May 2015 - May 2016

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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.  
**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.

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\* equal contribution