

Rohit Gajawada

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EDUCATION

Georgia Institute of Technology , Atlanta, Georgia	<i>Aug '19 - May '21</i>
<i>Master of Science in Computer Science</i>	GPA: 4.0/4.0
International Institute of Information Technology (IIIT-H) , Hyderabad, India	<i>Aug '15 - May '19</i>
<i>Bachelors of Technology in Computer Science and Engineering (Honors in Computer Vision)</i>	GPA: 8.41/10.0

TECHNICAL SKILLS

Programming Languages	Python, C, C++, MATLAB, Bash, Java, HTML, CSS, JavaScript
ML/DL/CV	PyTorch, Keras, TensorFlow, OpenCV, scikit-learn, scikit-image
Other Libraries and Tools	Git, LaTeX, OpenGL, WebGL, SQL, PyGame

EXPERIENCE

Graduate Researcher - Computational Perception Laboratory , Georgia Tech	<i>Sept '19 - Dec '19</i>
<ul style="list-style-type: none">Worked on few shot learning for object recognition using shape priors from 3D reconstruction.	
Machine Learning Intern - Computer Vision Center , Universitat Autònoma de Barcelona	<i>May '18 - July '18</i>
<ul style="list-style-type: none">Worked on unsupervised domain adaptation for end-to-end imitation learning for autonomous driving.Implemented CycleGAN, UNIT, WDGRL and LSD-seg based methods for domain adaptation.Trained models in PyTorch and CARLA Simulator, deployed in real world using Jetson TX2 and Raspberry Pi.	
Undergraduate Researcher - Center for Visual Information Technology , IIIT-H	<i>Mar '17 - Apr '19</i>
<ul style="list-style-type: none">Developed a full binarization method for deep CNNs that attains an increase of upto 8% in accuracy and 21% in compression.Developed a distribution-aware approach for binarizing deep CNNs that attains an increase of 2.5% in accuracy.Created a style transfer based data augmentation method for spoof detection resulting in upto 3% increase in TDR.	
Teaching Assistant - Georgia Tech, IIIT-H	<i>Jan '18 - Present</i>
<ul style="list-style-type: none">Courses: Computer Vision (Spring '20, Spring '19), Graphics (Spring '18)	

PROJECTS

Eye Gaze Detection using Attention Modeling	<i>(PyTorch, Python)</i>
<ul style="list-style-type: none">Implemented a deep learning model that follows the gaze of people and identifies salient objects in an image.The model does this by extracting head pose and gaze orientation of faces detected by a SSD detector.	
Automatic Top View Registration of Sports Videos	<i>(Python)</i>
<ul style="list-style-type: none">Created a semi-supervised method via camera augmentations that uses pix2pix to make edge map and homography pairs.For a query camera view image, KNN with HOG matching is done to get the optimal top view homography.	
Sketch Based Image Retrieval	<i>(MATLAB)</i>
<ul style="list-style-type: none">Implemented an edge grouping based SBIR system that uses a RankSVM, graph cuts, energy filtering and k-NN.	
BrickBreaker, Bloxorz and 3D Aquarium	<i>(C++, OpenGL, JS, WebGL)</i>
<ul style="list-style-type: none">Built a 2D game, a 3D game and a 3D aquarium simulator which incorporate physics, lighting and shaders.	
Distributed Chat Room	<i>(Java)</i>
<ul style="list-style-type: none">Created a client-server setup that maintains multi-threaded chat rooms between many clients.	
Digital Image Processing Toolbox	<i>(MATLAB, Python)</i>
<ul style="list-style-type: none">Implemented several algorithms for seam carving, resampling, blending, transformation, compression and filtering.	

PUBLICATIONS

- Hybrid Binary Networks: Optimizing for Accuracy, Efficiency and Memory**, A. Prabhu, V. Batchu, **R. Gajawada**, S. Munagala, A. Namboodiri, *WACV 2018*
- Distribution-Aware Binarization of Neural Networks for Sketch Recognition**, A. Prabhu, V. Batchu, S. Munagala, **R. Gajawada**, A. Namboodiri, *WACV 2018*
- Universal Material Translator: Towards Spoof Fingerprint Generalization**, **R. Gajawada***, A. Popli*, T. Chugh, A. Namboodiri, A.K. Jain, *ICB 2019*

SELECTED COURSEWORK

Computer Vision, Machine Learning, Software Engineering, Digital Image Processing, ML with Limited Supervision, Optimization Methods, Artificial Intelligence, Graphics, Reinforcement Learning, Data Structures, Algorithms, Operating Systems