

Rohit Gajawada

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EDUCATION

Georgia Institute of Technology , Atlanta, Georgia <i>Master of Science in Computer Science</i>	<i>Aug '19 - May '21</i>
International Institute of Information Technology (IIIT-H) , Hyderabad, India <i>Bachelors of Technology in Computer Science and Engineering (Honors in Computer Vision)</i>	<i>Aug '15 - May '19</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 • Working on few shot learning for object recognition using shape priors from 3D reconstruction with Prof. James M. Rehg.	<i>Sept '19 - Present</i>
Machine Learning Intern - Computer Vision Center , Universitat Autònoma de Barcelona • Worked on unsupervised domain adaptation for end-to-end imitation learning for autonomous driving. • Implemented CycleGAN, UNIT, WDGRU 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.	<i>May '18 - July '18</i>
Undergraduate Researcher - Center for Visual Information Technology , IIIT-H • 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.	<i>Mar '17 - Apr '19</i>
Teaching Assistant - Georgia Tech, IIIT-H • Courses: Computer Vision (Spring '20, Spring '19), Graphics (Spring '18)	<i>Jan '18 - Present</i>

PROJECTS

Eye Gaze Detection using Attention Modeling • 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.	<i>(PyTorch, Python)</i>
BrickBreaker, Bloxorz and 3D Aquarium • BrickBreaker and Bloxorz are 2D and 3D games respectively which incorporate physics, lighting and shaders. • Created a 3D Aquarium with lighting, bubbles, reflective glass and multiple kinds of fish.	<i>(C++, OpenGL, JS, WebGL)</i>
Sketch Based Image Retrieval • Implemented an edge grouping based SBIR system that uses a RankSVM, graph cuts, energy filtering and k-NN.	<i>(MATLAB)</i>
Automatic Top View Registration of Sports Videos • Developed a semi-supervised method that uses pix2pix for field markings to create a homography database and k-NN.	<i>(Python)</i>
Distributed Chat Room • Created a client-server setup that maintains multi-threaded chat rooms between many clients.	<i>(Java)</i>
Digital Image Processing Toolbox • Implemented several algorithms for resampling, blending, transformation, restoration, compression and filtering.	<i>(MATLAB)</i>

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