

# Rohit Gajawada

U.S. Citizen  
Atlanta, GA 30309

+1-832-903-9441  
rohitgajawada@gatech.edu  
rohitgajawada.github.io

## EDUCATION

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

## TECHNICAL SKILLS

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

## EXPERIENCE

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

## PROJECTS

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

## 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