Rohit Gajawada

U.S. Citizen
Atlanta, GA 30309

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

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia — *Aug '19 - May '21*
Master of Science in Computer Science

International Institute of Information Technology (IIIT-H), Hyderabad, India — *Aug '15 - May '19*
Bachelors of Technology in Computer Science and Engineering (Honors in Computer Vision) — 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 — *Sept '19 - Present*

- Working on few shot learning for object recognition using shape priors from 3D reconstruction with Prof. James M. Rehg.

Machine Learning Intern - Computer Vision Center, Universitat Autònoma de Barcelona — *May '18 - July '18*

- 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 — *Mar '17 - Apr '19*

- 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 - IIIT-H — *Jan '18 - May '19*

- Courses: Computer Vision (Spring '19), Graphics (Spring '18)

PROJECTS

Eye Gaze Detection using Attention Modeling — *(PyTorch, Python)*

- 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.

BrickBreaker, Bloxorz and 3D Aquarium — *(C++, OpenGL, JS, WebGL)*

- 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.

Sketch Based Image Retrieval — *(MATLAB)*

- Implemented an edge grouping based SBIR system that uses a RankSVM, graph cuts, energy filtering and k-NN.

Automatic Top View Registration of Sports Videos — *(Python)*

- Developed a semi-supervised method that uses pix2pix for field markings to create a homography database and k-NN.

Distributed Chat Room — *(Java)*

- Created a client-server setup that maintains multi-threaded chat rooms between many clients.

Digital Image Processing Toolbox — *(MATLAB)*

- Implemented several algorithms for resampling, blending, transformation, restoration, 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