

Rohit Gajawada

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EDUCATION

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| 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

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| 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

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| Graduate Researcher - Computational Perception Laboratory , Georgia Tech • Working on few shot learning, 3D object recognition and 3D reconstruction with Prof. James M. Rehg. | <i>Aug '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 - IIIT-H • Courses: Computer Vision (Spring '19), Graphics (Spring '18) | <i>Jan '18 - May '19</i> |

PROJECTS

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| 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 and k-NN after creating a homography database. | <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