Rohit Gajawada

U.S. Citizen

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EDUCATION

Georgia Institute of Technology, Atlanta, Georgia — *Aug '19 - May '21 (expected)*
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: 3.46/4.0

EXPERIENCE

Computer Vision Center - Universitat Autònoma de Barcelona — *May '18 - July '18*

- Worked as an intern on domain adaptation via GANs for end-to-end imitation learning for autonomous driving.
- Implemented CycleGAN, UNIT, WDGRL and LSDSEG based methods for domain adaptation.
- Trained models in PyTorch and CARLA Simulator, deployed in real world using Jetson TX2 and Raspberry Pi.

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 data augmentation method for fingerprint spoof detection resulting in upto 3% increase in TDR.
- Worked on projects related to generative adversarial networks, tracking, metric learning, OCR and image retrieval.

Teaching Assistant - IIIT-H — *Jan '18 - May '19*

- Courses: Computer Vision (Spring '19), Computer Graphics (Spring '18)
- Conducted tutorials, mentored students for projects, graded and helped in design of assignments and exams.

PROJECTS

Eye Gaze Detection using Attention Modelling — *(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.
- WebGL Aquarium is a 3D aquarium with lighting, bubbles, reflective glass and multiple kinds of fish.

Ultimate Tic-Tac-Toe Bot — *(Python)*

- Developed a tree search based game bot using minimax algorithm, alpha beta pruning and heuristics.

Reinforcement Learning Algorithms — *(PyTorch)*

- Implemented sample efficient ACER, DQN, Double DQN, Policy Gradient and Actor-Critic agents.

Distributed Chat Room — *(Java)*

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

K-Nearest Neighbors based classifier — *(Python)*

- Built a k-NN classifier with feature engineering and BoW preprocessing for author identification of documents.

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***

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, MPI

RELEVANT COURSES

Computer Vision, Machine Learning, Digital Image Processing, Optimization Methods, Artificial Intelligence, Software Engineering, Computer Graphics, Reinforcement Learning, Data Structures, Algorithms, Operating Systems, Web Dev, Scripting