Rohit Gajawada

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EDUCATION

Georgia Institute of Technology, Atlanta, Georgia · *Aug '19 - May '21*
Master of Science in Computer Science (Specialization in Machine Learning) · **GPA: 4.0/4.0**

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++, SQL, MATLAB, Bash, Java, JavaScript, HTML, CSS
ML/CV/AI Libraries	PyTorch, Keras, scikit-learn, TensorFlow, OpenCV, spacy
Other Libraries	numpy, pandas, OpenGL, OpenMP, D3.js, NetworkX, CUDA, Flask
Miscellaneous	Git, Spark, CMake, LaTeX, Docker, AWS, GCP, Databricks, Tableau, Jira

EXPERIENCE

Perception Engineer - Anduril Industries, Irvine, CA · *June '21 - Present*
- Working on impactful computer vision and machine learning applications that solve complex national security challenges.

Software Engineering Intern - Uber ATG, San Francisco, CA · *Aug '20 - Dec '20*
- Developed a novel camera and lidar sensor fusion based deep learning approach for birds eye view segmentation, which performs better than certain state of the art methods while being more computationally and memory efficient on vehicle.
- Added learnt temporal fusion extensions which perform better especially on low to the ground obstacles and construction.
- Developed a distributed IoU metrics suite for evaluation of birds eye view and range view semantic segmentation models.
- Setup calibration of semantic segmentation models in order to improve reliability and interpretability.

Machine Learning Intern - PathAI, Boston, MA · *May '20 - Aug' 20*
- Developed deep learning based multi-task learning and fusion approaches for cancer diagnosis of whole slide images.
- Showed that common features between cell and tissue models results in upto a 5% accuracy boost and improved heatmaps.

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.
- Trained models in PyTorch and CARLA Simulator, deployed in real world using Jetson TX2 and Raspberry Pi.

Teaching Assistant - Georgia Tech, IIIT-H · *Jan '18 - May '21*
- Courses: Computer Vision (Spring '21, Spring '20, Spring '19), Graphics (Spring '18)

PROJECTS

Automatic Top View Registration of Sports Videos · *(Python, OpenCV, PyTorch)*
- Created a semi-supervised method using homography based camera augmentations, KNN, HOG matching and pix2pix.

Eye Gaze Follower · *(PyTorch, Python)*
- Implemented a model that follows the gaze of people detected by a SSD detector by extracting saliency and head pose.

Social Media based Stock Price Trajectory Prediction · *(Python, Keras, PyTorch, D3.js, React, Flask)*
- Built a stock price prediction visualization app powered by LSTMs for forecasting and FinBERT for sentiment analysis.

Unbiased Node Embedding based Movie Recommendation System · *(Python, PyTorch, pandas)*
- Created metapath2vec and GraphSAGE embeddings with fair gender sampling during training for the MovieLens Graph.

Game Development Projects · *(C++, OpenGL, JS, WebGL)*
- Developed a 2D game, a 3D game and a 3D aquarium simulator which incorporate physics, lighting and shaders.

PUBLICATIONS

- **Universal Material Translator: Towards Spoof Fingerprint Generalization**, **R. Gajawada**, A. Popli, T. Chugh, A. Namboodiri, A.K. Jain, **ICB 2019**
- **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**