Rohit Gajawada

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EDUCATION

Georgia Institute of Technology, Atlanta, Georgia

Master of Science in Computer Science (Specialization in Machine Learning)

International Institute of Information Technology (IIIT-H), Hyderabad, India

Bachelors of Technology in Computer Science and Engineering (Honors in Computer Vision)

TECHNICAL SKILLS

 $\begin{array}{c} \textbf{Programming Languages} \\ \textbf{ML/CV Libraries} \end{array}$

Python, C, C++, SQL, MATLAB, Bash, JavaScript, Java, HTML, CSS

PyTorch, Keras, scikit-learn, TensorFlow, OpenCV

Miscellaneous Git, numpy, pandas, LaTeX, pytest, OpenGL, Flask, Docker, PySpark

EXPERIENCE

Software Engineering Intern - Uber ATG, San Francisco, CA

Aug '20 - Dec '20

Aug '19 - May '21

Aug '15 - May '19 GPA: 8.41/10.0

GPA: 4.0/4.0

- Solving problems in perception for unstructured autonomous driving on the Autonomy Capabilities team.
- Working on a jointly learnt approach for birds eye view segmentation and semantic segmentation in PyTorch and C++.
- The approach involves camera and lidar sensor fusion along with single frame and temporal sequence refinement.

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 better heatmaps.
- Integrated these features with unit tests after code review into PathAI's ML platform using TensorFlow and Keras.

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 - Apr '20

• Courses: Computer Vision (Spring '20, Spring '19), Graphics (Spring '18)

PROJECTS

Automatic Top View Registration of Sports Videos

(Python)

• 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.

Embedding Common Sense into Question Answering

(PyTorch, Python)

• Implemented a BERT based MCQ solver augmented with a GPT model trained on a common sense knowledge graph.

Part Of Speech Tagger

(PyTorch, Python)

• Implemented an LSTM based POS Tagger that uses embeddings of both word level and character level n-grams.

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

RELEVANT COURSEWORK

Computer Vision, Machine Learning, Software Engineering, Natural Language Processing, ML with Limited Supervision, Artificial Intelligence, Digital Image Processing, Graphics, Mobile Manipulation, Algorithms, Operating Systems