# 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)

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

Aug '19 - May '21

GPA: 4.0/4.0

#### TECHNICAL SKILLS

Programming Languages

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

ML/CV Libraries PyTorch, Keras, scikit-learn, TensorFlow, OpenCV

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

# Miscellaneous EXPERIENCE

# Software Engineering Intern - Uber ATG, San Francisco, CA

Aug '20 - Dec '20

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

# 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.

#### Distributed Tic-Tac-Toe and Chat Room

(Java)

• Developed a distributed client server setup that can handle multiple games and chatrooms using the Java RMI protocol.

#### 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, Algorithms, Data Structures, ML with Limited Supervision, Operating Systems, Database Systems, Distributed Systems, Graphics, Mobile Manipulation