

Gregory Meyer

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EDUCATION

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

PHD, ELECTRICAL AND COMPUTER
ENGINEERING

August 2014 - December 2016

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

MS, ELECTRICAL AND COMPUTER
ENGINEERING

August 2011 - May 2014

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

BS, COMPUTER ENGINEERING

January 2008 - December 2010

RESEARCH AREAS

- Computer Vision • Machine Learning
- Autonomous Driving • Face Analysis

SKILLS

- C • C++ • Python • CUDA
- TensorFlow • PyTorch • OpenCV

PEER REVIEW

- CVPR • ICCV • IJCV • ICRA
- IROS • T-ITS

PUBLICATIONS

- A. Laddha, S. Gautam, G. P. Meyer, C. Vallespi-Gonzalez, and C. K. Wellington, "RV-FuseNet: Range View Based Fusion of Time-Series LiDAR Data for Joint 3D Object Detection and Motion Forecasting," arXiv:2005.10863, 2020.
- N. Djuric, H. Cui, Z. Su, S. Wu, H. Wang, F.-C. Chou, L. San Martin, S. Feng, R. Hu, Y. Xu, A. Dayan, S. Zhang, B. C. Becker, G. P. Meyer, C. Vallespi-Gonzalez, C. K. Wellington, "MultiXNet: Multiclass Multistage Multimodal Motion Prediction," arXiv:2006.02000, 2020.
- G. P. Meyer, J. Charland, S. Pandey, A. Laddha, C. Vallespi-Gonzalez, and C. K. Wellington, "LaserFlow: Efficient and Probabilistic Object Detection and Motion Forecasting," arXiv:2003.05982, 2020.
- S. Gautam, G. P. Meyer, C. Vallespi-Gonzalez, and B. C. Becker, "SDVTracker: Real-Time Multi-Sensor Association and Tracking for Self-Driving Vehicles," in Proceedings of the IROS Workshop on Planning, Perception, Navigation for Intelligent Vehicle (PPNIV), 2020.
- G. P. Meyer, "An Alternative Probabilistic Interpretation of the Huber Loss," arXiv:1911.02088, 2019.
- G. P. Meyer and N. Thakurdesai, "Learning an Uncertainty-aware Object Detector for Autonomous Driving," in Proceedings of the International Conference on Intelligent Robots and Systems (IROS), 2020.
- G. P. Meyer, J. Charland, D. Hegde, A. Laddha, C. Vallespi-Gonzalez, "Sensor Fusion for Joint 3D Object Detection and Semantic Segmentation," in Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 2019.
- G. P. Meyer, A. Laddha, E. Kee, C. Vallespi-Gonzalez, and C. K. Wellington, "LaserNet: An Efficient Probabilistic 3D Object Detector for Autonomous Driving," in Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019.
- G. P. Meyer and M. N. Do, "Real-time 3D Face Verification with a Consumer Depth Camera," in Proceedings of the IEEE Conference on Computer and Robot Vision (CRV), 2018.
- G. P. Meyer, S. Alfano, and M. N. Do, "Improving Face Detection with Depth," in Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2016.
- G. P. Meyer, S. Gupta, I. Frosio, D. Reddy, and J. Kautz, "Robust Model-based 3D Head Pose Estimation," in Proceedings of the International Conference on Computer Vision (ICCV), 2015.
- G. P. Meyer and M. N. Do, "3D GrabCut: Interactive Foreground Extraction for Reconstructed 3D Scenes," in Proceedings of the Eurographics Workshop on 3D Object Retrieval (3DOR), 2015.
- G. P. Meyer and M. N. Do, "Real-time 3D Face Modeling with a Commodity Depth Camera" in Proceedings of the IEEE International Conference on Multimedia and Expo (ICME), 2013.

EXPERIENCE

MOTIONAL | PRINCIPAL RESEARCH SCIENTIST

February 2021 - Present | Pittsburgh, PA

UBER ATG | SENIOR SOFTWARE ENGINEER, RESEARCH LEAD

January 2017 - February 2021 | Pittsburgh, PA

- Led the research into methods for real-time 3D object detection and motion forecasting utilizing LiDARs and cameras for self-driving vehicles. Supported the productionization of these method onto our autonomous platform.
- Led our reading group where we reviewed over 200 academic papers.
- Helped define our labeling standard.

GOOGLE | SOFTWARE ENGINEERING INTERN

May 2015 - August 2015 | Seattle, WA

- Worked with the Jump team to develop a technique for capturing a room-sized environment with the multi-aperture Jump camera for virtual reality.

NVIDIA | RESEARCH INTERN

August 2014 - January 2015 | Sunnyvale, CA

- Worked with the Mobile Visual Computing group at NVIDIA Research to develop a method for estimating the pose of a person's head.

GOOGLE | SOFTWARE ENGINEERING INTERN

May 2014 - August 2014 | Mountain View, CA

- Worked with the Photo Editing team to develop techniques for editing photos using 3D information.

GOOGLE | SOFTWARE ENGINEERING INTERN

May 2013 - August 2013 | Mountain View, CA

- Worked with the Google Objects team within Google Research to construct a system for capturing a coarse 3D model of an object using a RGB-D camera.