Maan Qraitem

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Education

Boston University Boston, MA
Masters/Ph.D in Computer Science *Sep 2020 – Now*

- **Advisors:** Kate Saenko and Bryan A. Plummer
- **Relevant Coursework:** Computer Vision, Deep Learning, Multimodal Learning, Advanced Optimization.

Colby College Waterville, ME
B.A in Computer Science and Statistics; ***GPA: 3.97 (Summa Cum Laude)*** *Sep 2016 – May 2020*

Publications

- From Fake to Real: Pretraining on Balanced Synthetic Images to Prevent Bias: **Maan Qraitem**, Kate Saenko, Bryan A. Plummer. In Submission.
- Bias Mimicking: A Simple Sampling Approach for Bias Mitigation: **Maan Qraitem**, Kate Saenko, Bryan A. Plummer. CVPR 2023.
- From Coarse to Fine-grained Concept based Discrimination for Phrase Detection: **Maan Qraitem**, Bryan A. Plummer. CVPR Workshop on Computer Vision in the Wild 2023.
- Bridging the gap: Machine learning to resolve improperly modeled dynamics: **Maan Qraitem**, Dhanushka Kularatneb, Eric Forgostonc and M. Ani Hsieh. Phsyica D Journal 2020.
- Real-time physics-based removal of shadows and shading from road surfaces: Bruce A. Maxwell, Casey A. Smith, **Maan Qraitem**, Ross Messing Spencer Whitt, Nicolas Thien Richard M. Friedhoff. CVPR Workshop on Autonomous Driving 2019.

Experience

Boston University Boston, MA
PhD Candidate *Sept 2020 – Now*

- Research detection and mitigation of spurious correlations in Computer Vision models. My work was published in CVPR and CVPR workshops.

Iteris Inc Santa Ana, Cal
Machine Learning Research Intern *May 2020 – Aug 2020*

- Implement a Graph Neural Nets for traffic prediction which incorporates spatiotemporal traffic data. The method improved performance over in house model by 20%
- Incorporate weather data into the model through an additional CNN branch improving performance by 10%

GRASP Lab, University of Pennsylvania Philadelphia, PA
Research Intern *May 2019 – Aug 2019*

- Design and Train Spatio-temporal Recurrent Deep Learning models that effectively bridge the gap between inaccurate equations and ground truth observations
- Generate Spatio-temporal data from variances of the Navier Stokes equations using finite difference solvers.

Bigelow Lab/Colby College Waterville, ME
Research Intern *May 2018 – Aug 2018*

- Develop bio diversity vision monitoring systems for coral reefs using state of the art Deep Learning classification and tracking system
- Supervise collecting an image dataset of labeled fish species.

Skills

Programming: Python (Primary) C, C++ (Secondary)

Frameworks: Pytorch, Tensorflow, Numpy, Pandas, Git.

Awards & Achievements

Charles A. Dana Scholar Colby College

Rhodes Scholarship Finalist Colby College