Maan Qraitem
mqraitem@outlook.com | @mqraitem

Education

Boston University
Masters/Ph.D in Computer Science
- Advisors: Kate Saenko and Bryan A. Plummer
- Relevant Coursework: Computer Vision, Deep Learning, Multimodal Learning, Advanced Optimization.

Colby College
B.A in Computer Science and Statistics; GPA: 3.97 (Summa Cum Laude)

Publications

- Bias Mimicking: A Simple Sampling Approach for Bias Mitigation: Maan Qraitem, Kate Saenko, Bryan A. Plummer. CVPR 2023
- Bridging the gap: Machine learning to resolve improperly modeled dynamics: Maan Qraitem, Dhanushka Kularatneb, Eric Forgostonce and M. Ani Hsieh. Physica 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
- Circadian oscillations persist in low malignancy breast cancer cells: Sujeewa S. Lellupitiyage Don, Hui-Hsien Lin, Jessica J. Furtado, Maan Qraitem, Stephanie R. Taylor, Michelle E. Farkas. Cell Cycle 2019.
- Analyses of BMAL1 and PER2 Oscillations in a Model of Breast Cancer Progression Reveal Changes With Malignancy: Hui-Hsien Lin, Maan Qraitem, Yue Lian, Stephanie R Taylor, Michelle E Farkas. Sage 2019.

Experience

Iteris Inc
Machine Learning Research Intern
- Implement a Graph Neural Nets for traffic prediction which incorporates structured spatial 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
Research Intern
- Generate Spatio-temporal data from variances of the Navier Stokes equations using finite difference solvers.
- Design and Train Spatio-temporal Recurrent Deep Learning models that effectively bridge the gap between inaccurate equations and ground truth observations

Bigelow Lab/Colby College
Research Intern
- 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.

Colby College
Research Intern
- Develop and Implement time series analysis algorithms (wavelet transform) to understand the behavior of circadian clocks in cancer cells.

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