Yongxin (Richard) Wang

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EDUCATION

- **Carnegie Mellon University** — Pittsburgh, PA
  Master of Science in Computer Vision; GPA: 4.0/4.33 — Aug. 2018 – Dec. 2019
- **Georgia Institute of Technology** — Atlanta, GA
  Bachelor of Science in Computer Science; GPA: 3.67/4.0 — Aug. 2013 – May. 2018
  Bachelor of Science in Industrial and System Engineering; GPA: 3.67/4.0

PUBLICATIONS

[1] **Y. Wang**, X. Weng, K. Kitani, "Graph Neural Network for Simultaneous Detection and Association for Multi-Object Tracking", work under progress

[2] X. Weng, **Y. Wang**, Y. Man, K. Kitani, "GNNMOT: Graph Neural Network for Joint 2D and 3D Online Multi-Object Tracking", in submission

[3] E. Chong, **Y. Wang**, N. Ruiz, J. Rehg, "Detecting Attended Visual Targets in Video", in submission

[4] E. Chong, N. Ruiz, **Y. Wang**, Y. Zhang, A. Rozga, J. Rehg, "Detecting Attended Visual Targets in Video", in ***European Conference on Computer Vision 2018*** [PDF]

[5] A. Godwin, **Y. Wang**, J. Stasko, "TypoTweet Maps: Characterizing Urban Areas through Typographic Social Media Visualization", short paper in ***European Conference on Visualization 2017*** [PDF]

SELECTED EXPERIENCE

- **Carnegie Mellon University** — Pittsburgh, PA
  Capstone Project with Prof. Kris Kitani — Jan. 2019 - Present
    - Graph Neural Network (GNN) for Simultaneous Detection and Association for Multi-Object Tracking (MOT) [1]
        - Proposed the first GNN method for simultaneous detection and association for multi-object tracking
        - Achieved performance competitive to state of the art MOT Benchmark (MOTA 56.6/48.7 on MOT15/17)
    - Worked on 2D/3D Multi-Object Tracking using GNN [2]. Paper submitted.
- **Carnegie Mellon University** — Pittsburgh, PA
  Research Assistant with Prof. Louis-Philippe Morency — Aug. 2019 - Preseent
    - Implemented a Graph Neural Network based method for social intelligence modeling on Social-IQ dataset
    - Built deep face counting and deep face tracking pipelines for data preprocessing
- **Amazon** — Seattle, WA
  Applied Scientist Intern with Dr. Wei Xia — May 2019 - Aug. 2019
    - Designed high resolution face synthesis with disentangled control through facial identity and attributes
    - Presented work to all Amazon Scientist across the globe at Amazon All-Hands meeting
- **Georgia Institute of Technology** — Atlanta, GA
  Research Assistant with Prof. Jim Rehg — Jan 2017 - May 2018
    - Gaze target prediction in video [3]. Work done while at CMU, paper submitted.
        - Designed a spatial-temporal architecture for gaze target prediction in video
    - Gaze target prediction in the wild [4]. Paper accepted in ***ECCV 2018***
        - Annotated human gaze targets as in-image and out-of-image for over 120,000 images
        - Performed experiments and compared against baseline methods
- **ADP LLC** — Atlanta, GA
  Software Development Intern — May 2017 - Aug. 2018
    - Designed the backend pipeline for ADP Web Service Monitor Tool using NodeJS, ExpressJS and MongoDB
    - Functionalities include user registration, login/logout, continuous/manual service monitoring

SELECTED PROJECTS

- **Face Counting:** Designed a method to count the number of unique faces within a set of images
- **Attended One-Stage Visual Grounding:** Built a project on language grounding in images using attention
- **Face Tracking in Video:** Implemented a project to track human faces within videos while working on Social-IQ
- **Facial-Vocal GAN:** Designed a multi-modal Generative Adversarial Network for talking face generation
- **Multi-Source Domain Adaptation:** Applied Model Agnostic Meta-Learning for multi-source domain adaptation

PROGRAMMING SKILLS

- **Languages**: Python, MatLab, Java, C++   **Technologies**: PyTorch, NumPy, Tensorflow, OpenCV, AWS