Yongxin (Richard) Wang

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EDUCATION

- **Carnegie Mellon University** Pittsburgh, PA
  Master of Science in Computer Vision; *Aug. 2018 – Dec. 2019*
- **Georgia Institute of Technology** Atlanta, GA
  B.S. in Computer Science, B.S. in Industrial and System Engineering; *Aug. 2013 – May. 2018*
  Honors: Summa Cum Laude

PUBLICATIONS

[1] J. Yang*, **Y. Wang***, R. Yi, Y. Zhu, A. Rehman, A. Zadeh, S. Poria, L.P. Morency, "MTAG: Modal-Temporal Attention Graph for Unaligned Human Multimodal Language Sequences", in ***NAACL-HLT* 2021**

[2] **Y. Wang**, K. Kitani, X. Weng, "Graph Neural Network for Simultaneous Detection and Association for Multi-Object Tracking", in ***ICRA* 2021**

[3] E. Chong, **Y. Wang**, N. Ruiz, J. Rehg, "Detecting Attended Visual Targets in Video", in ***CVPR 2020***

[4] X. Weng, **Y. Wang**, Y. Man, K. Kitani, "Graph Neural Network for 3D Multi-Object Tracking with Multi-Feature Learning", in ***CVPR 2020***

[5] E. Chong, N. Ruiz, **Y. Wang**, Y. Zhang, A. Rozga, J. Rehg, "Connecting Gaze, Scene, and Attention: Generalized Attention Estimation via Joint Modeling of Gaze and Scene Saliency", in ***ECCV 2018*** [PDF]

[6] 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

- **Amazon AWS AI** Seattle, WA
  Applied Scientist I *Mar. 2019 - present*
  - Working on improving face recognition pipeline performance, and fairness in face recognition technologies,
- **Carnegie Mellon University** Pittsburgh, PA
  Capstone Project with Prof. Kris Kitani *Jan. 2019 - Mar. 2020*
  - Graph Neural Network (GNN) for Simultaneous Detection and Association for Multi-Object Tracking (MOT) [2]
    - Proposed the first GNN method for simultaneous detection and association for multi-object tracking
    - Achieved State-of-the-art performance on MOTChallenge
- **Carnegie Mellon University** Pittsburgh, PA
  Research Assistant with Prof. Louis-Philippe Morency *Aug. 2019 - Mar. 2020*
  - Designed a Graph Neural Network based method for modeling multimodal temporal human language sequences [1]
  - Built deep face counting and deep face tracking pipelines
- **Amazon AWS AI** 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].
    - Designed a spatial-temporal architecture for gaze target prediction in video
  - Gaze target prediction in the wild [5].
    - Annotated human gaze targets as in-image and out-of-image for 120,000 sample
    - Performed experiments and designed baseline ablations
- **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