Yu Alice YIN

CONTACT INFORMATION	427 Richard Hall, 360 Huntington Ave., Northeastern University, Boston, MA, U.S. Homepage: https://yin-yu.github.io/ — yin.yu1@husky.neu.edu — Tel: +1-(857)971-0842

RESEARCH INTERESTS

Computer Vision: image synthesis (face super-resolution & frontalization); visual recognition (face alignment & expression recognition).
Machine Learning: deep learning.
Signal Processing: biosignal processing and fusion.

EDUCATION

Northeastern University, Boston, USA — Spring 2019 – Now

Ph.D., Department of ECE, College of Engineering, *Expected:* Spring 2023

- Major in Computer Engineering
- Advisors: *Prof.* Yun Raymond Fu

M.S., Department of ECE, College of Engineering — Fall 2016 – Fall 2018

- Major in Electrical and Computer Engineering
- Thesis Topic: *Affective Pose: Facial & Physiology Expression of Emotion*
- Advisor: *Prof.* Sarah Ostadabbas
- GPA: 3.8/4.0

Wuhan University of Technology, Wuhan, China — Sep 2012 – Jul 2016

B.S., School of Electronic Engineering

- Major in Electrical and Information Engineering
- GPA: 3.7/4.0

RESEARCH EXPERIENCE

SMILE lab, Northeastern University, Boston, USA — Sping 2019 – Now
Research Assistant. Advisor: *Prof.* Yun Raymond Fu
Projects: 1. Deep learning for face hallucination and alignment. 2. High-resolution frontal face synthesis.

ACLab, Northeastern University, Boston, USA — Sep 2016 – Dec 2018
Research Assistant. Advisor: *Prof.* Sarah Ostadabbas
Projects: 1. Facial expression and biosignal fusion to decode affective experience. 2. Biosignal processing tool for machine learning. 3. Multimodal physiological signals fusion to predict psychological threat vs. challenge. 4. Human pose estimation using deep learning.

Carseeing.AI (startup company), Beijing, China — May 2018 – Sept 2018
Research Intern. Mentors: *Dr.* Zhou Liu
Projects: Hand gesture recognition using ToF sensor.

Wuhan University of Technology, China — Sep 2012 – Jun 2016
Research Assistant. Advisor: *Prof.* Dejun Liu
Projects: Millimeter-wave radar signal processing for vehicle recognition devices.

PREPRINTS

1. **<u>Yu Yin</u>**, Joseph Robinson, Songyao Jiang, Yue Bai, Can Qin, and Yun Fu, "SuperFace: From Low-resolution Image to High-resolution Frontal Face Sythesis," *submitted to IEEE Computer Vision and Pattern Recognition* (**CVPR 2020**)

2. **<u>Yu Yin</u>**, Songyao Jiang, Joseph Robinson, and Yun Fu, "Dual-Attention GAN for Large-Pose Face Frontalization," *submitted to IEEE International Conference on Automatic Face and Gesture Recognition* (**FG 2020**)

3. Can Qin, Lichen Wang, Qianqian Ma, **<u>Yu Yin</u>**, Huan Wang, and Yun Fu, "Unity of Opposites: A Holistic Approach to Semi-supervised Domain Adaptation," *submitted to IEEE Computer Vision and Pattern Recognition* (**CVPR 2020**)

4. Yue Bai, Lichen Wang, Yunyu Liu, **<u>Yu Yin</u>**, and Yun Fu, "Long-Short Dual-Side AutoEncoder for Human Motion Segmentation," *submitted to IEEE International Conference on Automatic Face and Gesture Recognition* (**FG 2020**)

CONFERENCE PUBLICATIONS

1. **<u>Yu Yin</u>**, Joseph Robinson, Yulun Zhang and Yun Fu, "Joint Super-Resolution and Alignment of Tiny Faces," *AAAI Conference on Artificial Intelligence* (**AAAI 2020**).

2. **<u>Yu Yin</u>**, Mohsen Nabian, Sarah Ostadabbas, Miolin Fan, and ChunAn Chou, "Facial Expression and Peripheral Physiology Fusion to Decode Individualized Affective Experience," *Affective Computing Workshop of the International Joint Conferences on Artificial Intelligence* (**IJCAI Workshop 2018**).

3. **<u>Yu Yin</u>**, Mohsen Nabian, Athena Nouhi, and Sarah Ostadabbas, "A Biosignal-Specific Processing Tool for Machine Learning and Pattern Recognition ," *IEEE Healthcare Innovations and Point-of-Care Technologies* (**HI-POCT 2017**).

JOURNAL PUBLICATIONS

1. Shuangjun Liu, **<u>Yu Yin</u>**, and Sarah Ostadabbas, "In-Bed Pose Estimation: Deep Learning with Shallow Dataset," *IEEE Journal of Translational Engineering in Health and Medicine* (**JTEHM**), vol. 7, no. 1, pp. 1-12, Jan. 2019.

2. Aya Khalaf, Mohsen Nabian, Miaolin Fan, **<u>Yu Yin</u>**, Jolie Wormwood, Erika Siegel, Karen Quigley, Murat Akcakaya, ChunAn Chou, and Sarah Ostadabbas, "Analysis of Multimodal Physiological Signals Within and Across Individuals to Predict Psychological Threat vs. Challenge," *Expert Systems With Applications*, Aug. 2019.

3. Mohsen Nabian, **<u>Yu Yin</u>**, Jolie Wormwood, Karen S. Quigley, Lisa F. Barrett, and Sarah Ostadabbas, "An Open-Source Feature Extraction Tool for the Analysis of Peripheral Physiological Data," *IEEE Journal of Translational Engineering in Health and Medicine* (**JTEHM**), vol. 6, Oct. 2018.

HONORS AND AWARDS

- Excellent Bachelor Thesis of Wuhan University of Technology, 2016
- Third Prize Scholarship of Wuhan University of Technology, 2013, 2014, 2015

PROFESSIONAL ACTIVITIES

Oral Presentations or Posters at Conferences
- Conference on Healthcare Innovations and Point-of-Care Technologies (HI-POCT), Washington, D.C 2017
- Affective Computing Workshop of the International Joint Conferences on Artificial Intelligence (**IJCAI**),
  Stockholm, Sweden 2018

SKILLS

- Programming: Matlab, C/C++, Python, LaTeX, Visual Studio, OpenCV, Linux.