



- Constructed an ensemble graph with multiple features (Mutual information, cross correlation and texture etc), and discovered the hidden correlations across images using random walk with restart (RWR).
- Developed an interactive skin lesion segmentation system using generative multi-walker RWR process.

***Hidden Smile Correlation Discovery using Random Walk with Restart***

***06/2016-11/2016***

- Detected faces and located facial fiducial points using conditional random forest.
- Revealed relevance scores between smiles across subjects by a succession of Markov random steps.
- Classified four levels of smiles with accuracy of 78.17% using UVA-NEMO smile dataset.

***AR-based Food Nutrition Visualization System on Google Glass***

***11/2015-06/2016***

- Captured region of interest, employed Google reverse image search, used Jsoup (Java HTML Parser) to parse the web pages, extracted the image information and accessed online database to acquire the nutrition information.
- Implemented Augmented Reality techniques (LDB and ORB) on Android platform, track object and render nutrition information on the food.

**CERTIFICATION**

---

***Statistical Learning with Distinction, Stanford University Online***

***12/2018-Present***

Identifier Number: a70711de2471410cb55831e29bece36c

**SELECTED PUBLICATIONS**

- 
- **Haotian Jiang**, James Starkman, Yu-Ju Lee, Huan Chen, Xiaoye Qian, Ming-Chun Huang, “Distributed Deep Learning Optimized System over the Cloud and Smart Phone Devices”, Accepted by IEEE Transactions on Mobile Computing, 2019.
  - **Haotian Jiang**, Mustafa Coskun, Alaa Badokhon, Menghan Liu, Ming-Chun Huang, “Hidden Smile Correlation Discovery across Subjects using Random Walk with Restart”, IEEE Transactions on Affective Computing, 2017.
  - **Haotian Jiang**, James Starkman, Ming-Chun Huang, “Food Nutrition Visualization on Google Glass: Design Trade-off and Field Evaluation”, IEEE Consumer Electronics Magazine, 2018.
  - **Haotian Jiang**, Yi Cai, Xiao Zeng, Ming-Chun Huang, “Does Background Really Matter? Worker Activity Recognition in Unconstrained Construction Environment”, IEEE 15th International Conference on Body Sensor Networks (BSN), 2018.
  - **Haotian Jiang**, James Starkman, Chih-Hung Kuo, and Ming-Chun Huang, “AcuGlass: Quantifying Acupuncture Therapy using Google Glass”, EAI International Conference on Body Area Networks (Bodynets'15), Sydney, Australia, 2015.
  - Menghan Liu, **Haotian Jiang**, Jia Chen, Alaa Badokhon, Xuetao Wei, Ming-Chun Huang, “A collaborative privacy-preserving deep learning system in distributed mobile environment”, International Conference on Computational Science and Computational Intelligence (CSCI), 2016.
  - Menghan Liu, **Haotian Jiang**, Jia Chen, Ming-Chun Huang, “Tidal Volume Estimation Using Portable Ultrasound Imaging System”, IEEE Sensors Journal (**SJ**), 2016.
  - Taiyu Chen, Xiaoliang Zhang, **Haotian Jiang**, Golnoush Asaeikheybari, Nikhil Goel, Monica Webb Hooper, Ming-Chun Huang, “Are You Smoking? Automatic Alert System Helping People Keep Away from Cigarettes”, IEEE/ACM International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE), 2018.
  - Diliang Chen, Jia Chen, **Haotian Jiang**, Ming-chun Huang, “Risk Factors Identification for Work-Related Musculoskeletal Disorders with Wearable and Connected Gait Analytics System”, IEEE/ACM International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE), 2017.
  - Yi Cai, Yifan Guo, **Haotian Jiang**, Ming-chun Huang, “Machine-learning Approaches for Recognizing Muscle Activities Involved in Facial Expressions Captured by Multi-channels Surface Electromyogram”, Smart Health, 2017.
  - Golnoush Asaeikheybari, Justin Green, Xiaoye Qian, **Haotian Jiang**, Ming-Chun Huang, “Medical Image Learning from A Few/Few Training Samples: Melanoma Segmentation Study”, IEEE International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE), 2019.