IMAN ABBASNEJAD

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EDUCATION

Queensland University of Technology, Brisbane, Australia Oct 2013 - Sept 2018
Ph.D. in Computer Vision and Machine Learning

Thesis: Learning spatio-temporal features for efficient event detection

Shiraz University, Shiraz, Iran Sept 2011 - Aug 2013

GPA: 16.02
Thesis: Hierarchical Face Representation and Recognition Using Bayesian Network

Yazd University, Yazd, Iran Sept 2005 - Mar 2011

GPA: 18.48
Thesis: Color Detection Device

CARRIER OBJECTIVE

To work on challenging computer vision and machine learning problems. Looking to learn new skills and applying state-of-the-art techniques.

SELECTED PROJECTS

3D Facial Expression Reconstruction
Building a 3D deform-able facial model for modeling expressions. The model was used to generate 3D synthetic facial data for training a deep 3D neural network for expression recognition. The codes for this project are implemented in MATLAB, Python and Tensorflow framework.

Temporal Enevnt Detection
Given a long duration sequence the goal was to detect different events in the sequence. The location and length of events are unknown in the video. The codes for this project are implemented in Python and Caffe framework.

Segmentation and Image matting
Given an image the goal is to remove foreground from background in details. The input image has similar foreground and background colors and complicated textures. The codes of this project are implemented in Python and Tensorflow framework.

3D Human Body Reconstruction
Given a set of unlabeled MoCap markers on human body the goal is to simultaneously estimate pose and shape parameters and reconstruct the 3D model of body. The codes are implemented in Python and OpenGL.

WORK EXPERIENCE

Computer Vision and Machine Learning Scientist Sept 2017 - present
Perth, WA, Australia

· In this project I am responsible to develop the machine learning and computer vision techniques for improving the accuracy of the models. The trained models are deployed in both iOS and Android devices. The codes for the projects are implemented in C++, Python, Objective-C and Tensorflow and Pytorch frameworks.

Computer Vision Ph.D. Intern Jan 2016 - Aug 2016
Body Labs, Tuebingen, Germany

· Given a set of unlabeled MoCap markers on human body the goal is to simultaneously estimate pose and shape parameters and reconstruct the 3D model of body. The codes are implemented in Python and OpenGL.

Programming Manager Jan 2016 - Aug 2016
Shiraz University, Robot vision, Shiraz, Iran

· I was responsible for supervising the research and implementation of the face recognition algorithms that was used in Shiraz University robot. The robot was located at the entrace of the university and was react to the people. The codes in this project are implemented in MATLAB, C++ and Java.

Software developer Aug 2011 - Nov 2011
NEGSO, Shiraz, Iran

· I was a software developer in NEGSO. The main aim of the project I was involved in was removing blur and noise from medical images and improve the signal to noise ratio. This project was implemented in C++ and MATLAB.

INTERNSHIP AND VISITING

Max Planck Institute for Intelligent Systems Jan 2016 - Aug 2016
Tuebingen, Germany

Project: 3D human body reconstruction using unlabeled MoCap markers

The Robotics Institute, Carnegie Mellon University Sept 2014 - Jan 2016
Pittsburgh, PA, USA

Project: Complex event detection in both isolated and continuous videos.

Commonwealth Scientific and Industrial Research Organization Oct 2013 - Sept 2014
Brisbane, QLD, Australia

Project: Object detection and face tracking using correlation filters and the conditional random fields algorithms.

CONFERENCE AND JOURNAL PUBLICATIONS

1. Abbasnejad, E., Wu Q., **Abbasnejad I.**, Shi, J., Van Den Hengel A. *An Active Information Seeking Model for Goal-oriented Vision-and-Language Tasks*, **arxiv 2019**.
2. Mahmood, N., Pons Moll, G, Ghorbani, N. **Abbasnejad I.**, Troje, N.F., Black, M. J. *Unifying Motion Capture Datasets by Automatically Solving for Full-body Shape and Motion*, **TPAMI 2018**. (submitted)
3. Nguyen, D., Nguyen, K., Sridharan, S., **Abbasnejad, I.**, Dean, D. Fookes, C. *Meta Transfer Learning for Facial Emotion Recognition*, International Conference on Pattern Recognition, **ICPR 2018**.
4. **Abbasnejad, I.**, Sridharan S., Denman S., Fookes C., Lucey S. *Joint Max Margin and Semantic Features for Continuous Event Detection in Complex Scenes.* Computer Vision and Image Understanding 2017. **arxiv 2017**.
5. **Abbasnejad, I.**, Sridharan S., Nguyen D., Denman S., Fookes C., Lucey S. *Using Synthetic Data to Improve Facial Expression Analysis With 3D Convolutional Networks.* In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, pp. 1609-1618. 2017. **ICCV 2017**.
6. Abbasnejad, E., Shi J., **Abbasnejad I.**, Van Den Hengel A., Dick A. *Bayesian Conditional Generative Adverserial Networks.* 6th International Conference on Learning Representations, **arxiv 2017**.
7. **Abbasnejad, I.**, Sridharan S., Denman S., Fookes C., Lucey S. *From Affine Rank Minimization Solution to Sparse Modeling.* IEEE Winter Conference on Applications of Computer Vision 2017. **WACV 2017**.
8. **Abbasnejad, I.**, Sridharan S., Denman S., Fookes C., Lucey S. *Complex Event Detection using Joint Max Margin and Semantic Features.* International Conference on Digital Image Computing: Techniques and Applications 2016. **DICTA 2016**.
9. Reddy, N., **Abbasnejad I.**, Reddy, S., Mondal, A., Devalla, V. *Incremental Real-Time Multibody VSLAM with Trajectory Optimization Using Stereo Camera*, 2016 IEEE/RSJ International Conference on Intelligent Robots and Systems **IROS 2016**.
10. **Abbasnejad I.**, Sridharan S., Denman S., Fookes C., Lucey S.,*Learning Temporal Alignment Uncertainty for Efficient Event Detection*, 2015 International Conference on Digital Image Computing: Techniques and Applications **DICTA 2015**.
11. **Abbasnejad I.**, Teney, D. *A hierarchical Bayesian network for face recognition using 2D and 3D facial data.* IEEE 25th International Workshop in Machine Learning for Signal Processing 2015 **MLSP 2015**.
12. **Abbasnejad I.**, Zomorodian M. J., Tabatabaei Yazdi E., *Combination of Multi-class SVM and Multi-class NDA for Face Recognition*, 19th Annual International Conference on Mechatronics and Machine Vision in Practice **M2VIP 2012**.
13. **Abbasnejad I.**, Zomorodian M. J., Abbasnejad M. A., Ajdari H., *Pose Recognition using Mixture of Exponential Family*, The 16th CSI International Symposium on Artificial Intelligence and Signal Processing **AISP 2012**.

ACADEMIC EXPERIENCE

Teacher Assistant Jan 2016 - Aug 2016
School of Electrical and Computer Engineering, Shiraz University

TALKS

How Deep Neural Networks Work? Feb 2017
Shiraz University of Technology
Automatic Human Body Reconstruction using Unlabeled Sparse Markers Jun 2016
Max Planck Institute for Intelligent Systems

AWARDS & HONOURS

Max Planck Scholarship Award	2016
CSIRO Scholarship Award	2013-2018
QUT Postgraduate Research Award	2013-2018
Ranked first among Master student at Shiraz University	2013
Best Bachelor Thesis Award	2011

PROGRAMMING LANGUAGES AND TOOLS

Python, C++, MATLAB/GNU-Octave, Caffe, Tensorflow, Keras, CoreML, SWIFT, Metal, Linux

REVIEWING

1. **European Conference on Computer Vision 2016**
2. **IEEE Transactions on Affective Computing 2017**
3. **International Conference on Pattern Recognition 2018**

LANGUAGES

1. Persian(Mother tongue)
2. English - International English Language Test (IELTS) 7.5
3. German
4. French
5. Arabic