Maneesh Bilalpur
mbilalpur@gmail.com
+1 (412) 641-9324

EDUCATION

PhD in Intelligent Systems
University of Pittsburgh — Present

Master of Science by Research
IIIT Hyderabad, INDIA — July 2015 - May 2018
CGPA 8.5

Bachelor of Technology
Vellore Institute of Technology, Vellore, INDIA — July 2011 - May 2015
CGPA 8.98

PROFESSIONAL EXPERIENCE

Computer Vision Researcher — August 2018 – July 2019
Playment.io

Researcher — September 2017 – May 2018
National University of Singapore, Singapore — Adviser: Prof. Mohan Kankanhalli

- User Profiling with Implicit Behavioral Signals.
  Deep learning for Emotion and Gender Recognition using EEG and gaze features during facial emotion recognition. *Manuscript under preparation for TAC submission*
- EEG-based Evaluation of Cognitive Workload for Data Sonification
  Data sonification using Psychoacoustic parameters for improved accessibility of visually impaired.

Research Assistant — July 2015 – September 2017
Center for Visual Information Technology, India — Adviser: Prof. Ramanathan Subramanian

- Discovering Gender differences in Facial Emotion Recognition using Implicit Behavioral Signals
  Worked on exploring low-cost commercial devices for acquisition and exploitation for user profiling tasks with machine learning methods.
- Cognitive Workload Classification for User-Interface Evaluation.
  Designed and performed data acquisition set-up with Tobii EyeX tracker and Emotiv EEG headset towards measuring cognitive workload with applications for user interface evaluation.

PROJECTS

- Fine-grain Bird Classification using Siamese Network
  Designed a Siamese network for a 200 class bird classification problem using pretrained VG-

GNet using Tensorflow with Keras. *Python*

- Image Classification using Advanced Algorithms
  Performed a 10 class image classification on CIFAR-10 and face recognition on Yale-face datasets using multiple Machine Learning methods with Bag-of-Visual-Words features.
  Python & MATLAB
- Content-based Image Carving
  Implemented Seam carving image cropping technique preserving SIFT features for reduction in image compression using Energy minimization approach. *MATLAB*
- Attention based Bi-LSTM for Speech Emotion Recognition.
  Design of a bidirectional LSTM with attention for 5-class speech emotion recognition on IEMOCAP dataset. *Python*[**Code**]
- Multi-label Satellite Imagery Classification.
  Classification of Amazon rainforest satellite images for the presence of human activity through fine-tuning of VGG16. *Python*[**Code**]

COMPUTING SKILLS

Programming: Python, C, MATLAB, C++(familiar)
Machine Learning: Tensorflow(Keras), Pytorch, Scikit-learn
Cloud Infrastructure: AWS, Docker

PUBLICATIONS

- **Maneesh Bilalpur**, Seyed Mostafa Kia, Tat-Seng Chua and Ramanathan Subramanian, "Discovering Gender Differences in Facial Emotion Recognition via Implicit Behavioral Cues", Affective Computing & Intelligent Interaction (ACII), 2017.[**PDF**]
- **Maneesh Bilalpur**, Seyed Mostafa Kia, Manisha Chawla, Tat-Seng Chua, Ramanathan Subramanian, "Gender and Emotion Recognition with Implicit User Signals", International Conference on Multimodal Interaction (ICMI), 2017.[**PDF**]
- **Maneesh Bilalpur**, Stefan Winkler, Mohan Kankanhalli, Ramanathan Subramanian, "EEG-based Evaluation of Cognitive Workload Induced by Psychoacoustic Parameters for Data Sonification", International Conference on Multimodal Interaction (ICMI), 2018. [**PDF**]
- Viral Parekh*, **Maneesh Bilalpur***, C V Jawahar, Shravan Kumar, Stefan Winkler and Ramanathan Subramanian, "Investigating the generalizability of EEG-based cognitive load estimation across visualizations".

HONORS

- Student Travel Grant award winner for ACII'17 and ICMI'18.
- Gary Marsden Student Development Fund awardee for ICMI'18.
- Reviewer for the ICMI'18(Late-breaking results track).
- Top 4% of the country in *Graduate Aptitude Test in Engineering* exam.