AKSHAY SETHI

2014133, Email: akshay14133@iiitd.ac.in
DOB: November 08, 1994
Address: A-80, Meera Bagh, New Delhi – 110087

Education

IIIT-Delhi — CGPA: 8.81
B.Tech (ECE) — (till VIth Semester)
2014 – Present(2018 Expected)

Delhi Public School Rohini, New Delhi — Percentage: 94.6%
CBSE Board
2011 – 2013

Delhi Public School Rohini, New Delhi — CGPA: 10
CBSE Board
2001 – 2011

Skills

Expertise Area	Machine Learning, Deep Learning, Computer Vision
Programming Language	Python, C++, Java, C, MATLAB
Deep Learning Libraries	Keras, Caffe, PyTorch, Tensorflow
Tools and Technologies	Eclipse, Code-Blocks, Android Studio CSS, HTML, Caffe, Keras, Tensorflow
Technical Electives	Machine Learning, Image Analysis, Deep Learning, Robotics, Computer Vision

Internship

IBM Research(Research) — (May 2017 – July,2017)
Guide: Anush Sankaran, Senthil Mani — Team Size 1
Worked on Extracting Deep Learning Models such as CNNs, RNNs and Auto encoders from academic papers. Developed techniques deployed on the IBM-DARVIZ platform.Achived state of the art results of model flow extraction of deep learning diagrams from PDF files. Paper Submitted to AAAI.

Cube 26 Software(Industrial) — (March,2016 - April,2016)
Guide: Jaidev Deshpande — Team Size 1
Worked on source separation in Monaural Sounds using Deep Networks.

SahyogCare4u (NGO Work) (March,2016 -April,2016)
Team Size 1

Guide: Shekhar Mahajan
Built and android app on preventions from child abuse. Taught 15-20 students the basics of HTML and CSS in their computer center.

Projects

Attribute Analysis in Facial Images (August 2016 – July 2017)
B-Tech Thesis, Guide: Dr. Mayank Vatsa and Dr. Richa Singh Team Size 1
Working on attribute analysis in Facial Images using Auto encoders and various biometric techniques. Achieved near state of the art results on CelebA dataset using 3 layered auto encoders. Paper Submitted to PRL.

Sub-Class Generative Adversarial Networks (August 2017 – Present)

Guide: Dr. Mayank Vatsa and Dr. Richa Singh

Work on state of the art image generation Generative Adversarial Network models exploiting subclass information present in datasets like CIFAR100 and Adience.

Neural Architecture Search (August 2017 – Present)

Guide: Dr. Mayank Vatsa

Working data-depend prediction of Neural Architecture using RNNs, evolutionary algorithms and Reinforcement learning.

Facial Attribute Guided Image Generation (August 2017 – Present)

Guide: Dr. Richa Singh

Working on Image generation using GANs conditioned on various facial attributes like Smile, Age etc. with the identity preserving constraint.

Multi-Label Classification (August 2017 – Present)

Guide: Angshul Majumdar

Working on Multi-Label Classification using sparse representation learning and dictionary learning based methods.

Gray Matter Segmentation in FMRI Data (January,2016 – August,2016)
Guide: Dr. Chetan Arora and Dr. Anubha Gupta Team Size 3

Worked on Segmentation of Basal Ganglia in Brain FMRI scans using Convolutional Networks and Auto encoders. Achieved state of the art accuracy on on Basal Ganglia segmentation using Auto encoders. Paper accepted in ICVGIP'16

Fine Level Classification in Images (August,2016 – December,2016)
Guide: Dr. Chetan Arora Team Size 2

Worked on Fine level classification of clothing items such as Shoes using various Deep Learning techniques

Deep Reinforcement Learning (August, 2016 – December, 2016)
Guide: Dr. Saket Anand and Dr. Anubha Gupta Team Size 3

Worked on AI agents for playing popular mobile games such as Flappy Birds and Pong using Deep Q learning.

Face Recognition in Indian Celebrities (January, 2017 – April, 2017)
Guide: Dr. Chetan Arora and Dr.Saket Anand Team Size 2

Worked on Image recognition of various Indian Celebrities using CNNs and various other neural networks.

Deep Learning for Self Driving Cars (January, 2017 – April, 2017)
Guide: Dr. P B Sujit Team Size 2

Worked on Driving Cars autonomously using the Udacity simulator using CNNs. Achived a stable autonomous driving agent using truncated VGG network with data augmentation.

Image Super-Resolution and Neural Style (January, 2017 – April, 2017)
Guide: Dr. A V Subramanyam Team Size 2

Worked on Image Super-Resolution and Neural Style Transfer(Prisma) using Deep CNNs.Used VGG-16 as the base network for the style transfer.

Mapping Using Deep Learning (January, 2017 – April, 2017)
Guide: Dr. P B Sujit Team Size 1

Worked on segmenting images from Google Maps for automatic detection of Roads,Green Cover and Houses. Achived best results using SegNet architecture.

Publications

- Residual Codean Autoencoder for Facial Attribute Analysis, Submitted to Pattern Recognition Letters
  Authors :Akshay Sethi, Maneet Singh, Richa Singh , Mayank Vatsa

- Deep Neural Networks for Segmentation of Basal Ganglia substructures in BrainMR Images, **Accepted in ICVGIP'16**
  Authors :Akshay Sethi , Ayush Agarwal, Akshat Sinha, Chetan Arora, Anubha Gupta

- Paper2Code : Extracting Deep Learning models from Academic Papers
  Accepted in AAAI 2018
  Authors : Akshay Sethi, Anush Sankaran(IBM Research), Senthil Mani(IBM Research)

- DARVIZ : A visually IDE to build Deep Learning Models
  Accepted in AAAI Demos Track
  Authors : Anush Sankaran(IBM Research),Sethil Mani(IBM research), Akshay Sethi

- DARVIZ : A visually IDE to build Deep Learning Models
  Accepted in CODS-COMAD 2018 Demos Track
  Authors : Anush Sankaran(IBM Research),Sethil Mani(IBM research), Akshay Sethi

Positions of Responsibility

- Volunteer ESYA'15 , IIIT-D Technical Festival (July,2015 – August,2015)

Interests and Hobbies

- Instrumental Music – Synthesizer
- Competitive Programming

References
Dr. Mayank Vatsa (IIIT Delhi)
Senthil Mani (IBM Research)
Anush Sankaran (IBM Research)

Declaration: The above information is correct to the best of my knowledge.
Akshay Sethi
Date: November, 17, 2017