Shasvat Desai

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EDUCATION

University of Massachusetts Amherst **Fall 2017-Fall 2019**
Masters of Science in Computer Science (GPA:3.95/4.0)
Relevant Courses: Deep Learning, Computer Vision, Machine Learning, Algorithms of Data Science, Intelligent Visual Computing (3D Computer Vision), Natural Language Processing

Veermata Jijabai Technological Institute (V.J.T.I), Mumbai, India **Fall 2013-Fall 2017**
Bachelor of Technology in Computer Science (CGPA:8.65/10)
Relevant Courses: Algorithms, Operating Systems, Artificial Intelligence and Data Mining, Discrete Mathematics

TECHNICAL SKILLS

- **Languages:** Java, Python, C, C++, MATLAB, C#, R, Javascript, HTML, CSS
- **Frameworks:** Keras, PyTorch, TensorFlow, .NET, Hadoop, MapReduce, Git

EXPERIENCE

Bayer Business Services, Leverkusen, Germany- Natural Language Processing Intern **June 2018-Present**

- Identifying use cases of pharmaceutical products using classification algorithms on their corpus of medical data
- Prototyping the development of a ***Generative Chatbot model*** to automate the process of answering the questions asked by their consumers

Deep Learning Research Assistant- CICS, UMass Amherst **Spring 2018**

- Performed analysis of waveforms of memory traces generated from cache memory accesses of the program to model the underlying behavior of computer programs under *Professor Eliot Moss*
- Applied Sequence Modelling techniques - ***RNN, LSTM, Sequential autoencoders and Statistical models- ARIMA*** to model the time dependent nature of the memory traces and cluster similar computer programs

Wipro Technologies, Pune, India – Computer Vision Intern **May 2016– July 2016**

- Used ***C#, C++*** *and* ***OpenCV*** to develop modules for the Image Processing software used in the LEXT Industrial Confocal Laser Microscope

PROJECTS

Telekinesis- A Multiuser and Multiclass Classification of EEG data **May 2018-Present**

- Using a ***cascaded and parallel Convolutional Recurrent architecture*** using the learned representation from ***Variational Autoencoders*** for generalizing the EEG data for various multiuser and multiclass classification instead of training a model on a subject specific data

A Comparative Study of Architectures for 2D Image Segmentation **Spring 2018**

- Performed a comparative study of various Deep Learning models- ***FCN, U-Net, Dilated Convolutions, Dense Nets*** by modifying them for Image Segmentation in Keras Framework on PASCAL VOC dataset
- Utilized the power of transfer learning techniques and achieved improvement in the performance in U-Net

Question Answering on SQuAD **Spring 2018**

- Developed a novel architecture through modification of the ***BiDAF Network*** using PyTorch framework
- Leveraged the power of self attention used in ***Tranformer Networks*** and exploited the ***Dependency Parse structure*** of the text to achieve a 1.3% improvement in the F1 score over the original BiDAF model

Automatic Generation of Highlights from a Sports Video **Fall 2017**

- Automated the task for generating highlights of a game by recognizing audience reactions to the events during the game play, using a ***3D Convolutional Neural Networks*** in the Keras framework
- Experimented with transfer learning techniques by Fine tuning the models pretrained on action recognition datasets

ACHIEVEMENT

- Awarded the **DAAD RISE Professional Scholarship** 2018- Opportunity to intern at the headquarters of Bayer Business Services Research laboratory in Germany as an NLP intern for Summer 2018