VIKRAM J. SHENOY

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EDUCATION

MUMBAI UNVERSITY, Thadomal Shahani Engineering College, Mumbai, India

May 2018

• Bachelor of Engineering in Computer Engineering: **GPA: 3.63/4.0**

WORK EXPERIENCE

Technical Consultant, Annadhan Welfare Organization (Mumbai, IN)

Jan 2019 - Present

- Working as a pro bono technical consultant towards the design and development of the official Annadhan application in collaboration with J.P. Morgan Chase & Co.
- Created a work flow for the application's functionalities in accordance to the organization's day-to-day operations.
- Designed a sleek, consistent and user friendly interface for the application.

Machine Learning Research Intern, University of Groningen (Groningen, NL)

Aug 2018 - Oct 2018

- Performed an extensive analysis of the proposed feature selection algorithm as compared to existing feature selection methods such as Fisher Score, Generalized Matrix Learning Vector Quantization (GMLVQ), ReliefF and Boruta.
- Developed a new weighting scheme for the algorithm that considerably improved its performance and efficiency for larger datasets.
- Supervised by Prof. Dr. George Azzopardi at the Bernoulli Institute for Mathematics, Computer Science and Artificial Intelligence.

Software Engineering Intern, Vroom Cars (Irvine, CA, USA)

Feb 2017 - Aug 2017

- Researched On-board Diagnostics Parameter IDs (OBD II PIDS) codes used to request data from a vehicle.
- Implemented an algorithm to extract and transform raw data received through a mobile application into structured format.
- Developed an automated software to convert the structured data from a local database into multiple user-friendly graphs.

PROJECTS

Music Recommendation using Deep Learning

May 2019

- Trained a Convolutional Neural Network on mel-spectrograms of audio files to classify songs into their respective genres.
- Predicted latent feature vectors using the trained network in order to find the similarity between one song (anchor) and the rest of the songs in the test set.

Digit Generation using Wasserstein Generative Adversarial Networks

April 2019

- Trained a Wasserstein GAN (Generator Network and Critic Network) on the MNIST dataset using an estimate of the Wasserstein metric (Earth Mover distance) as the cost function.
- Generated digits (similar to MNIST dataset) by randomly sampling through a noise distribution and passing them through the trained generator network.

Twitter Sentiment Analysis using Recurrent Neural Networks

March 2019

- Preprocessed over 1.6 million tweets from Stanford's Sentiment140 dataset and split the data as 98% for training and 2% for testing.
- Trained a Recurrent Neural Network with LSTM units to analyze the sentiment of these tweets and classify them as positive or negative.
- Achieved an accuracy of 84.57 % on the test set and used the trained network to yield a degree of sentiment on user entered text.

Neural Style Transfer

Feb 2019

- Transferred the artistic style of one image onto another image using a pre-trained VGG19 network with Imagenet weights.
- Generated the final image by selecting intermediate layers in the network and reducing the overall loss (content loss and style loss).

Intelligent Games, Final Year Project

April 2018

- Developed an AI for chess and a famous tile puzzle game, 2048, using fundamental aspects of Game Theory.
- The AI for Chess is based on the Minimax algorithm with alpha-beta pruning and the AI for 2048 is based on the Expectimax algorithm.

Blue Scroll, Android Application

May 2017

- Developed a news aggregation mobile application that displays the latest news from over 50 different sources across multiple categories.
- Built an algorithm that parses and retrieves data from different news streams in under one second using JSON and Java.

TECHNICAL SKILLS

- Programming Languages: Python (Expert), Java (Proficient), C (Familiar).
- Frameworks and tools: Keras, TensorFlow, Plotly, Android Studio.
- Data-oriented Languages: SQL, JSON.
- Web Development: HTML, CSS, PHP, JavaScript, Ajax.