Nikhil Kumar

http://kumarnikhil.ml

nikhilkumar_15508@aitpune.edu.in

Education

2015 - Present	Bachelor of Engineering(BE), Information Technology Army Institute of Technology, University of Pune *Percentage: 9*.48 SGPA
2013-2014	Class XII, CBSE Board, K.V No. 2 Ambala Cantt, Haryana (Physics, Chemistry, Mathematics, Computer Science) *Percentage:* 88.2%
2011-2012	Class X, CBSE Board, K.V No. 2 Ambala Cantt, Haryana (Science, Mathematics and English) *Percentage: 9.2 CGPA*

Projects

Jan'18- Present **Plant Disease detection using CNN and Res-Net** *(Final Year Project)*

- In previous work similar task has been done on a specific plant type which was grown under Green house condition.

- In this project I am trying to make a single model for all the majority of plants grown by Indian farmers. Currently we are working with CNNs. Our goal is to make an android app which can be used by farmers.

Feb'18- Feb'18 **X-Ray Scans for Pneumothorax Detection**

- Chest X-Ray dataset containing X-ray labeled with the diagnosis for Pneumothorax was used for training and testing the model.

- Class Map Activation technique is used which generates "heatmaps" targeting the regions of the image to which model pays attention in the last layer.

Dec'17- Dec'17 **Generate your track with RNNs**

- A recurrent neural network model was trained on dataset created using the MIDI music toolkit

- The model built successfully captures the long term dependencies in musical notes

Jan'17- Jan'17 **Sentiment Classification with Sequence Models**

- To improve upon the simple feed forward model for classification tasks, we used represented a tweet as a sequence of words

- A model using LSTM cells and in the end there is one fully connected layer which outputs the probability for the tweet to be positive

Nov'16- Nov'16   **MLP for sentiment Analysis**

-Collected tweet data using twitter REST API on trending #hashtags

-A neural network with two hidden layer was implemented from scratch with three output classes for "Positive", "Neutral " and "Negative"

Certifications and Courses

- Fast.ai Part1v2 International Fellowship for the course at The Data Science Institute | University of San Francisco (Oct 17-Dec 17)
- Deep learning specialization from coursera.com | deeplearning.ai
- Machine learning from coursera.com
- Natural Language Processing from NPTEL | IIT Kharagpur
- Summer School on Natural Language Processing and Machine learning organized by ACM India at IIT Kharagpur (1st June'17 – 21st June'17)

Technical Skills

Programming Languages:	Python, C, C++, R, HTML, CSS, JavaScript, Shell scripting, MATLAB, Latex
Frameworks/ Tools:	TensorFlow, Keras, PyTorch, NodeJs, Django
Databases:	SQL, MongoDB
Operating System:	Linux, Windows
Others:	Jupyter Notebook, Atom Editor, AWS Services

Scholarships and Achievements

• Runner up in 'Amalgam' project competition sponsored by alumnus of AIT, 2017
• Runner up in Hackathon "Innerve'17" organized in, AIT Pune
• 2nd position in 'Code-Red' Annual inter college coding competition, AIT Pune, 2016

Extra-Curricular

• Student member of Computer Society of India and IEEE
• AI Geek Leader at AI Saturdays
• Board member of Cultural Board and writer in college magazine 'Srijna'
• Started AIT Machine Learning group – Tutored juniors
• Participate in Kaggle competitions
• Hobbies include Squash | Swimming
• Hosted events and invited researchers from IISC and IIT for lectures.
• Active member of AIT Open Source Software (OSS) group
• Member of Pune University Squash team