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Projects

• Deep Learning

- o Neural Machine Translation using Attention mechanism (NLP): Task is to implement Machine Translator. Attention was used to deal with longer sequences. Data cleaning and output labels were padded with start and end tokens before feeding to n/w.
- Nueral Question Answering(NLP + Attention + Machine Reading Coprehension): Objective is to find correct answer for given question and context pair. Implemented Standford Attentive Reader.SQUAD v1 dataset was used for this project. Various binary and NLP features were used to get the best results. Compared the final results with fine tuned BERT model.
- Image Captioning with Flickr 8k dataset. (CNN+RNN+Transfer Learning): Task is to generate caption for an image. Pre-trained Inception n/w on imagenet dataset was used in combination with RNN to generate caption for the given image. One-to-many RNN is used to train the n/w. For each image 5 standard caption are provided. The data was converted into sequence before feeding the n/w.

• Machine Learning

- o Netflix Movie Recommendation System (Collaborative based recommendation): Objective was for the given movie and user predict the rating given by him/her to the movie. The dataset was obtained from kaggle. Matrix factorization was used to get similarity matrices. Tried and tested various ML models to get minimum Root Mean Square.
- o Stack Overflow Tag Prediction: Objective is to predict as many as tags possible with high Precision and Recall. The dataset was obtained from kaggle. The given problem is multi-label classification problem. The dataset contains features such as Id, Title, Body and Tags. Data preprocessing and cleaning was done to remove html tags and hyperlinks. Micro-Averaged F1-Score was used as performance metric as mentioned on Kaggle.

EXPERIENCE

• Siemens R&D Pune, India

Product Development Engineer

Dec. 2018 - Present

• Automation Designer(Python/C++): Working as a part of sequence designer team. Working on NX as a product developer for Siemens.

• TCS Pune, India

Software Developer

Dec 2015 - Nov 2018

- o Application Developer(Python): Developed an application for client NCRA for Monitoring and Controlling of Giant Metrewave Radio Telescope. Coding for I/O operation. Monitoring H/W devices. Debugging the issue and modifying the GUI as per requirements
- o Production Management: Worked in QAPM for client Morgan Stanley. In QAPM team, I had worked in ED&S (Enterprise data and services) team which deals with different applications like CRD, SRD, TS, and PM

BLOGS

- Understanding sequential/Time-Series data for LSTM
- Back Propagation through LSTM: A differential approach
- Image Captioning With Flickr8k Dataset & BLEU
- Neural Question And Answering Using SQAD Dataset And Attention...!!!

EDUCATION

- B.Tech in Electronics and Telecommunication from Shri Guru Gobind Singhji Institute of Engineering and Technology, Nanded with **CGPA 7.7** (2011 - 2015)
- Class Xll (HSC), form Maharashtra State Board of Education with 83.33% (2009 2011)
- Class X (SSC), form Maharashtra State Board of Education with 90.92% (2008 2009)

TECHNICAL SKILLS

- Languages: Python, C++, C
- Data Analysis: Pandas, Numpy, Matplotlib, Seaborn
- ML /DL Toolkit: Keras, Sklearn, scikit-multilearn, tensorflow