Sudeep Raja Putta

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Education

Indian Institute of Technology Kharagpur   Kharagpur, India
Bachelor of Technology (Hons.)   *2012 - 2016*
CGPA : **8.88/10.00**

Programming Skills and Familiar tools

Languages   C, C++, Python
Tools   Keras, Caffe, Theano, CUDA

Projects and Internships

Human Activity Recognition in Temporally Untrimmed Videos
Bachelor Thesis Project   May 2015-April 2016
Guide: Dr.Partha Pratim Das

- We use two neural networks trained separately to perform different sub tasks.

- Activity Detection Network ADN is a CNN + LSTM trained on untrimmed videos to detect activity segments.

- Activity Recognition Network(ARN) is a 2-sream Convolutional Neural Network + LSTM trained on trimmed videos to recognize activities.

- Given a video, ADN predicts the temporal extents of activities and ARN predicts the activity occurring in the extent.

Text Recognition using Bidirectional Long Short Term Memory Neural Networks
Research Intern at CVIT lab at IIIT, Hyderabad   May 2014-July 2014
Guide: Dr.C.V. Jawahar

- Using BLSTM neural networks we were able to recognize characters from Indian text documents.

- Methods of implementing FNNs, RNNs and LSTM networks on GPUs using NVIDIA CUDA were explored.

Analysis of Clickbait articles
Social Computing Project   July 2015-November 2015

- Using features extracted from clickbait article titles, we trained a classifier to recognize clickbait headlines.

- Using Markov models ,we generated clickbait headlines. LSTM neural networks were also trained to generate clickbait articles.

- Using Supervised LDA topic modelling, we were able to predict the popularity of new articles.

Ambulance Response Time Optimization
Xerox Research Centre India Open 2015

- Using the Facility Location problem as a model , we were able to assign Ambulance locations in a city based on the accident count in each area such that the response time of an ambulance in case of an emergency is minimized.

- Our solution is tolerant to traffic delays during different times of the day and is applicable to related problems in transportation and facility location.

Non Photo-realistic Rendering of Images as paintings
Visual Communication Project and Microsoft Code.Fun.Do   May 2014 and October 2015

- Developed algorithms to render photographs as impressionist era paintings for styles such as Pointillism, Cubism , Divisionism and Fauvism.

- Using the Neural Algorithm of Artistic Style paper, we were able to achieve better results. We were runners up in Microsoft Code.Fun.Do conducted at IIT Kharagpur for our phone app.

Tracking Idea Evolution in Discussion Forums
Research Intern at IBM Research Labs, India   May 2015-July 2015
Cognitive Solutions Research Group

- Algorithms for identifying the Ideas proposed in a forum and tracking the evolution of ideas in the form of a tree were developed.

- Using the Word vectors embeddings and Sentiment analysis, Idea clusters were formed using a Chinese Restaurant Process and Idea Trees were constructed to capture the idea's evolution over time.

Scholastic Achievements

Xerox Research Centre India Open 2015   2015
My team of 3 won the Xerox Research Innovation Challenge at XRCI open 2015.

Microsoft Code.Fun.Do   2015
My team of 3 was campus runners up in Microsoft Code.Fun.Do

Aditya Birla Scholarship 2012   2012
Figured among top **24** engineering students shortlisted from all over India.

IIT Joint Entrance Examination (IITJEE)   2012
All India Rank-**281** in **General** category among half a million candidates.

All India Engineering/Architecture Entrance Examination (AIEEE)   2012
All India Rank-**63** in **General** category among one million candidates.