Karthik Revanuru

Personal Data

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Education

July 2018 Integrated Master of Technology (Bachelor and Master) in Information Technology
Aug 2013 **International Institute of Information Technology**, Bangalore
Major: Data Science
Thesis: "Scene Understanding in Class Room Scenario"
Advisor: Prof. Dinesh babu Jayagopi

Recent Work Experience

Current Data Science
Dec 2019 *CRED*

CRED is a community of the most creditworthy people in India who manage and pay their credit cards while unlocking rewards from a wide collection of premium brands. Will be gaining experience in building sustainable and scalable end-end data science products for more than 2 million users of CRED.

Nov 2019 Data Science Consultant
Sep 2019

Worked on Question and Answer extraction from audio recordings of a US based automotive dealership. Goal is to reduce workload on call center agents by answering possible customer queries in real time. Initial POC deployed was well accepted at customer end and full project was awarded. Worked on activity recognition (Fall,sleep,move,stand) from videos. The solution developed is deployed on a resource constrained device, runs on the edge and doesn't require internet.

August 2019 Data Scientist
July 2018 *Reckonsys Tech Labs*

Architect and lead developer for AI part in https://sparta.aero/. Built Entity Extraction modules for Lease Agreements, Airworthiness Directives and also built Document Classification module for the entire set of documents in Aircraft Asset Management. Developed a NSFW detector which masks the NSFW content from video and images which is currently deployed in a social network for kids.

Current Research Assistant
Jul 2018 *Advisor: Rameshwar Pratap, Asst Prof IIT Mandi*

Studied randomised hashing techniques like Minhash, Simhash and DOPH. Worked on optimising them in terms on randomness, running time and applied them on large scale graphs to generate embeddings which is more accurate and 100's of times faster than techniques like Node2Vec. Currently working on the extension of embeddings to hypergraphs and knowledge graphs. Our work resulted in one publication and 3 submissions in reputed conferences.

- Full list of work experience can be found on my Homepage

Technical Skills

Languages:	Python, C, C++, Java, Ruby, R, Perl, Shell, php, sql, html
Databases:	MySql, SQLite, MongoDB
OS:	Windows, Linux
Tools,Libraries:	Tableau, Eclipse, Gnu plot, MATLAB, Wire shark, Android Studio R Studio, Numpy, Tensorflow, Keras, Scikit learn.

I am comfortable using LaTeXto typeset documents.

Projects

April-May 2017

Quora Question Pairs

Thousands of new questions are posted in Quora everyday. In order to build a high-quality knowledge base,it's important to ensure each unique question exists on Quora only once. Writers shouldn't have to write the same answer to multiple versions of the same question, and readers should be able to find a single canonical page with the question they're looking for. In this project we applied Statistical Machine Learning and Deep Learning approaches to the problem of semantic matching on questions asked in Quora. Our model had an accuracy of 82 Percent.

March-April 2017

Automatic Shot Detection in Cricket

We have detected four types of cricket shots namely Straight Drive, Cover Drive, Pull shot and Cut Shot in Cricket. Our HMM based model has an accuracy of 80 percent and we are currently working on rating these shots and give some feedback based on how good was the shot played.

- Full list of my projects can be found on my Homepage

Publications

- Rameshwar Pratap, Debajyoti Bera and Karthik Revanuru. Efficient Sketching Algorithm for Sparse Binary Data. In ICDM 2019:IEEE International Conference on Data Mining (< 9 percent acceptance rate)
- Karthik Revanuru, Kaushik Turlapaty, and Shrisha Rao. Neural Machine Translation of Indian Languages. In Compute 2017:10th Annual ACM India Compute Conference
- Karthik Revanuru, Rameshwar Pratap, Debajyoti Bera, Tanmoy Chakraborty, and Raghav Kulkarni. FastEmb: Faster Succinct and Accurate Embedding for Large Network. (Under Review)
- Rameshwar Pratap, Karthik Revanru ,Anirudh Ravi and Raghav Kulkarni. Randomness Efficient Feature Hashing for Sparse Binary Data. (Under Review)
- Rameshwar Pratap, Karthik Revanru ,Anirudh Ravi and Raghav Kulkarni. Cosine Similarity Preserving Compression for Sparse Binary Data. (Under Review)

Scholarships and Certificates

- Selected for Innovation in Science Pursuit for Inspired Research (INSPIRE) Scholarship by Department of Science and Technology, Government of India in 2013.