Karthik Revanuru

Personal Data

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Areas of Interest

- Artificial Intelligence and Machine Learning, in general.
- Application of ML to Computer Vision, Natural Language Processing and Medical Image Analysis.

Education

July 2018 (Ongoing) 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

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.

Work Experience

Dec 2017 – Jun 2017 | Research Intern
Mazumdar Shaw Center for Translational Research
Working on segmentation of intrinsically heterogeneous (in appearance, shape, and histology) brain tumors namely Gliomas from multi-institutional pre-operative MRI scans.Wrote python scripts to pre-process MR Images. Trained a Random forest to segment Gliomas with a dice coefficiant of 0.76. Developing a deep-learning based approach to generate better segmentations.

May-July 2016 | Data Analyst Intern
Robert Bosch Engineering and Business Solutions Private Limited
Successfully developed a predictive analytics system (Proof Of Concept) for Bosch Deep-field Connect. Bosch Deep-field Connect assists the farmer in remotely monitoring the conditions on the field for strawberry and asparagus cultivation in real time and it also helps farmers in intelligent decision making with the motto of maximizing the harvest. I was responsible for predicting the harvest of the crop given soil conditions, temperature, moisture and harvest in the previous seasons.

Publications

- Karthik Revanuru, Kaushik Turlapaty, and Shrisha Rao. Neural Machine Translation of Indian Languages. In Compute 2017:10th Annual ACM India Compute Conference

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.

Sep-Nov 2016

Speed Dating Analytics

Performed Business Understanding, Descriptive Analytics, Cluster Analytics, Predictive Analytics using Classification and Association rules on a Speed Dating Experiment Dataset form Kaggle.

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

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.

Technical Blog and Activities

- Wrote posts explaining several Machine Learning and Deep Learning algorithms like Linear, Logistic Regression, SVM, MLP and CNN with implementations in Numpy.
- Wrote tutorials for several research papers like Capsule Network, YOLO and Never Ending Learning.
- Attended Compute 2017 and gave a talk on my work Neural Machine Translation of Indian Languages.

References

Available upon request.