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ABOUT ME

Currently a seventh semester student majoring in **Computer Science** at **PES University**
I have a zeal to explore sundry set of areas, new technologies and be part of challenging work environment.
Passionate about Data Science, Machine learning, NLP.
I have always been fascinated by math and statistics,by how a simple equation can describe an extremely complex phenomena and statistics which can describe the world through probability models.

ACADEMIC DETAILS

Examination	Institute	Year	CGPA/%
B.Tech	PES University	2015-19	9.27
12th	VVSSPPUC	2015	97
10th	VVSSPHS	2013	97.28

EXPERIENCE

- **SUNY Binghamton University, New York, USA** (Summer Research Intern)
  (June18 - Present)
  - Entity mention and Named Entity Recognition in Twitter Data
  - Developing mechanisms to extract named entities in real time and achieve state of art performance.

- **Koinearth, Bangalore** (Summer Intern)
  (June17-July17)
  - Implementing Crowdfunding as a lottery mechanism to record the transactions and outcomes of the investment.
  - Web interface built as a DApp employing smart contracts with solidity on ethereum blockchain and deployed it on the Testchain
- **Centre for Cloud Computing and Big Data** (Research Intern)
  (June17 - Present)
  - Investigating the impact of software versions on performance by measuring similar activities in varied CPU settings
  - Reported some performance metrics on different versions of Hadoop and Spark

FIELDS OF INTEREST

- Machine Learning, Data Science, Information Retrieval, NLP, AI

TECHNICAL SKILLS

- **Languages** (C, Python),**Database** (PostgreSQL)
- **Frameworks/libraries** (PLY, nltk, scipy, numpy ,CRAN, matplotlib, scikit-learn and others).

- **Hardware** (Arduino, RaspberryPi, 8051 microcontroller).

SELECTED PROJECTS

- **Sarcasm Detection in Text responses** (Research Project)
  (Oct-Dec 2017)
  - Used supervised learning techniques like Random Forest, SVM, Decision Trees and others to classify text responses by extracting the syntactic, semantic and orthographic features from the text.
  - Reported a comparitive study of results associated with each model with respect to accuracy, F-scores.
- **Duplicate questions detection using Seq2Seq models** (Research Project)
  (Oct 2018)
  - Developed a GRU based model which uses 2 channels one for processing Question1 and other for Question2
  - Predicted an output based on the semantic similarity between the 2 questions. This helps in discovering duplicate questions and handling them suitably. The ground truth is a binary field that is 1 if the 2 inputs are semantically similar (duplicates of each other) and 0 if they are distinct. Achieved an accuracy of 73.4%.
  - Technologies used are Keras, TensorFlow DataAPI, Glove vectors for the Embedding matrix.
- **Predicting Seizure using EEG data** (Research Project)
  (March-April 2018)
  - Epileptic Seizure Recognition Datasetfrom the UCI website
  - Deep learning approach to tackle the task of Seizure prediction using EEG data, and CNNs in combination with RNNs(LSTMs), other classification models and a comparitive study of the same.
  - Was successful in trying to predict if a seizure has occurred for a given EEG recording(of 1 s duration). CNNs combined with LSTM gave the most superior performance in terms of accuracy(98%) and average precision(91.83%).
- **Otto Evaluator** (Research Project)
  (June-July 2015)
  - Designed a scoring model for automated evaluation of descriptive answers.
  - Used semantic features(GenSim) and regression to achieve 80% accuracy.
- **Statistical library in C**
  (Nov-Dec 2016)
  - Project aimed at implementing basic C library for computing the various statistical measures like z-scores, hypothesis test, Median, Standard Deviation, Variance and others.
- **Mini Cpp compiler** (Course Project)
  - Developing front end of mini cpp compiler using PLY
  - Generating AST for a given code and optimization(dead code elimination, constant folding)
- **PhotON-Image sharing site**
  (Dec 2016)
  - Designed and deployed web application on OpenStack for image sharing and networking
  - This is an elastic application that scales itself based on the number of users for reduced downtime and rapid response.
- **NSS File System**
  (Nov-Dec 2016)
  - Designed a file system with super blocks, inodes and data blocks with persistence on hard disk in C
  - Used FUSE for implementation of the same

COURSE PROJECTS

- Hostel Management System as a Database project
- Web Application "JOURNAL" to save memories and share the same using HTML5, JavaScript, MySql, PHP
- "Implementation of Hash Map"(dictionary data type in C language) using AVL trees and Hashing

AWARDS AND ACHIEVEMENTS

- Invited by the then President of India Smt. Prathiba Patil to Rashrapati Bhavan for young achievers
- State Child Award For Exceptional Achievement by Government of Karnataka for the field of Academics
- Young Scientist Award by Karnataka Vignana Parishat
- International, National and State Level Abacus Champion and a GrandMaster
- Recipient of "C.N.R Rao scholarship for Academic Excellence", 2015-16
- Golden Jubilee award from VVS Gandhi Centenary School for overall achievements at school
- Annual Excellence awards for continuous years from 2007-2013 from VVSGC School

POSITION OF RESPONSIBILITY

- Member-Collegiate Social Responsibility Club
- Volunteer-Aatmatrisha Annual PESU Fest
- Active Rotaract Club of PES member
- House Captain-VVSSPHS

Github: Github-sourabh
LinkedIn: mylinkedin