Pavan Reddy **Bommana**

Resume

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Education

Indian Institute of Technology
Kharagpur, West Bengal

B.Tech(Hons.) in Computer Science and Engineering — *Jul. 2013 - Jun. 2017*

- Major: Computer Science and Engineering
- Cumulative GPA: 7.56/10

Sri Chaitanya Narayana Junior College
Hyderabad, Telangana

Intermediate/+2 — *Jun. 2011 - May. 2013*

- Stream: Maths, Physics and Chemistry(PCM)
- Percentage: 97 %

Montessori High School
Kurnool, Andhra Pradesh

SECONDARY SCHOOL CERTIFICATE — *July. 1999 - May. 2011*

- Percentage: 95.67 %

Internships

Hewlett Packard Enterprise
Bengaluru, India

Software Engineering Intern — *May. 2016 - Jul. 2016*

- Developed a module to create distributed virtual switch on a data center in the hyper convergent server using ViJAVA API.
- Developed module to capture and store the queue statistics and the physical interface statistics of the OpenSwitch and HPE General switch using SSH and REST wrappers.
- The above two projects were successfully merged with the existing repository of the team and put into use for further development.

Flipshope
Bengaluru, India

Research and Development Intern — *June. 2017 - Aug. 2017*

- Installed and configured ELK stack on a cluster of Linux servers.
- Indexed huge amounts of data containing product information from multiple e-commerce sites in India and made them searchable. Also integrated autocomplete suggestion feature of ElasticSearch to enhance search experience.
- Developed a deep learning(LSTM) model combined with sentence embeddings to generate unsupervised abstractive summary for product reviews on e-commerce sites. Word2vec was used for generation of sentence embeddings.

Projects

Gait based identity verification(Bachelor Thesis Project)
Prof. Shamik Sural, Department of Computer Science and Engineering, IIT Kharagpur

- Studied gait of a person with an intent to identify the person based on his walking style.
- Established identity of the person using techniques such as background subtraction, feature extraction, CNN, depth analysis.
- Images of the person walking are captured from different angles and these images are preprocessed and a deep CNN is applied to classify and identify the person among different subjects.

Document Summarization
Prof. Pabitra Mitra, Department of Computer Science and Engineering, IIT Kharagpur

- Developed unsupervised document summarization system which returns the gist of large documents using machine learning and information retrieval approaches.

Predicting Future Energy Consumption
Prof. Sudeshna Sarkar, Department of Computer Science and Engineering, IIT Kharagpur

- Accurately forecasted the hourly energy loads (in kW) of various households in India using a data set containing the energy consumption rates of these households.
- Developed several multivariate linear regression models and reliably predicted energy loads with down to 5% mean training and testing errors.
- Used Leave One Week Out Cross-Validation (LOWOCV) algorithm for this purpose over the 4.5 years of data available.

Serendipitous search of research articles
Prof. Pawan Goyal and Prof. Animesh Mukherjee, Department of Computer Science and Engineering, IIT Kharagpur

- Implemented search engine that gives serendipitous suggestions of research articles to the reader based on his query.
- Returned serendipitous articles from a large database of research articles of about 40GB, using information retrieval methods.
- Implemented relevance feedback feature.

Face recognition

Prof. Shamik Sural, Department of Computer Science and Engineering, IIT Kharagpur

- Objective of this project was to identify all the people present in a group photo by name.
- Implemented standard face detection algorithms to obtain all the faces in a group photo using OpenCV.
- Developed and trained a CNN model over the database of faces to establish the identity of a given face.

Grapher

OpenSoft 2016

- Developed a software to extract data points from the plots that are embedded in a PDF documents using techniques such as multi-threading, edge detection, pattern detections.

University Course Management System

Prof. Pabitra Mitra, Department of Computer Science and Engineering, IIT Kharagpur

- Developed an interactive university course management system website for students and professors, similar to Moodle, using Django.
- Created separate login interfaces for students and professors to ensure modularity.
- Implemented modules such as course registration, fee payment, assignment submission, email alerts, grade submission.

Scholastic Achievements

2013	**298th rank**, JEE Advanced, 2013	*India*
2013	**99.99 percentile**, JEE Mains, 2013	*India*
2013	**236th rank**, EAMCET 2013, state level engineering entrance exam	*Hyderabad, India*
2012	**Scholarship recipient**, Kishore Vigyanik Protsahan Yojana (KVPY) by the Government of India	*India*
2012	**5th rank**, Science Olympiad by UNESCO and IGNOU	*New Delhi, India*
2010	**Top 100**, NSEJS(Junior Science Olympiad)	*Hyderabad, India*
2009	**High Distinction with Special mention**, Australian National Chemistry Quiz	*Kurnool, India*
2009	**10th rank**, International Maths Olympiad	*Kurnool, India*

Technical Skills

Languages: C, C++, Python, Java
Skills: ElasticSearch, Django, Git, SQL, PHP, OpenCV, TensorFlow, Eclipse, LaTeX
Platforms: Debian Linux(Ubuntu), Windows 7 Enterprise

Extracurricular Activities

National Service Scheme

IIT Kharagpur *Aug. 2013 - May. 2015*

- Worked as Volunteer in NSS, IIT Kharagpur for period of two years during which I committed myself to the welfare of Talbagicha village.

Student Mentor

SWG, IIT Kharagpur *July. 2015 - Apr. 2017*

- Guided the freshers of Computer Science and Engineering department as a part of student mentorship program of SWG, IIT Kharagpur.