

Jayant Gupta

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Objective

To contribute towards ongoing novel researches and to enhance my technical skills and knowledge in the fields of my interest in an institution, offering a highly challenging environment.

Areas of interest

Information Retrieval, Information Extraction, Text Mining, Machine Learning.

Education

Year	Degree/Certificate	University/School, city	CGPA/Score
2008 to Present	Bachelor of Technology and M.S by research in Computer Science and Engineering	International Institute of Information Technology (IIIT), Hyderabad, India	7.6/10
2008	(Senior Secondary) All India Senior School Certificate Examination (India)	India International School, Jaipur, India	87%
2006	(Secondary) All India Secondary School Examination (India)	India International School, Jaipur, India	93%

Academic Achievements

- Enlisted in the **Dean's list** for excellence in academic performance for the **spring 2009** semester.
- Cleared the **district level (Jaipur)** of **International Mathematical Olympiad - 2008**.
- Secured an **All India Rank of 1850 (out of about 8,60,000)** students appearing in All India Engineering Entrance Examination (**AIEEE**) - **2008**.
- Secured an **All India Rank of 7140 (out of about 3,60,000)** students appearing in Indian Institute of Technology – Joint Entrance Examination (**IIT-JEE**) – **2008**.

Work Experience

- Research Assistant**
Search and Information Extraction Lab, IIIT-H
August, 2012 - November, 2012
Worked on **Sandhan** project. which aims at building an **Indian language search engine**. It is built upon **nutch (v 0.9) framework** and uses **Hadoop** for distributed crawling, **Lucene** for indexing, **Moses/GIZA++** for training models.
- Research Assistant**
Language Technology Research Center, IIIT-H
August, 2010 - August, 2012
Worked on **Virtual lab** project for NLP and CL labs which aims creating virtual teaching environments where a user can learn about the specific field of computer science. The environment was created for undergraduate and post graduate users.

Publications

- Varma, V., Gupta, J., Kovelamudi, S., Priyatam, N., Sood, A., Jain, H., ... & Vaddepally, S. R. (2011, November). IIIT Hyderabad in Summarization and Knowledge Base Population at TAC 2011. In *Proceedings of the Fourth Text Analysis Conference (TAC 2011)–Guided Summarization Track*. Gaithersburg, Maryland, USA.

Major Projects

- Multi-document Summarization using Conceptual Spaces**
Summaries for documents belonging to same topic were generated using **conceptual spaces**. These spaces are inferential representation of text using which contextual meaning and relation between textual entities can be generated. For evaluation purposes we compared our system with previous state-of-the-art systems (**LSA based, graph based, Data reconstruction based**).

- **Multilingual Document Ranking**

In this project we create a singular ranked list of documents for a given topic. The ranked list contains documents from different languages, so the ranking is done using features which are language independent. For evaluation purposes we will be calculating **NDCG**(normalized discounted cumulative gain) scores of the retrieved ranked list.

- **Vertical Search and Classification in Online Grievance Retrieval**

The objective of this project is to retrieve user specific grievances with complete demographics of these grievances like heat map, sentiments, feedback, etc. We are working on the retrieval of the grievances from multiple web sources like, blogs, social media sites, news article sites, etc. At present we are working with open source APIs for web search based on google and bing. We create our own crawlers to enhance results. Second aspect of our work is classification of various retrieved grievances at a large scale. **Hadoop mahout** classifier is being used to perform this task.

Other Projects

- **Inventory Management System**

The system was built for the **use of retail traders**, which can allow them to manage their commodities in a systematic and comfortable manner. Technologies like **Web2py** were used in this project based on **MVC (Model View Control) Architecture**.

- **Building a Search Engine from Scratch**

The project required creation of efficient and compact **indexing and searching algorithms**. To reduce index size, **secondary indexing** and **data compression** techniques were used. Searching was done using string and feature matching techniques.

- **Automatic Dictionary Generation using Wikipedia Structure**

Bilingual dictionary is generated using wikipedia structure(section, sub-section) to identify similar set of named entities across any two languages. Named entities were generated using automatic translation and transliteration.

- **Image Data Analysis**

Classification of **Caltech-101** dataset was done using **vfeat library** and effects of different parameters and addition of external data were analyzed.

Skill set

• Operating System	GNU/Linux, Windows
• Programming Languages	C (Moderate), JAVA(Moderate), C++ (Basic),
• Scripting Languages	Bash (Basic), PHP (Basic), Python (Moderate)
• Database Management	MySQL (Moderate)
• Other Tools	Latex, MATLAB
• Specialized softwares/libraries	Lucene, Nutch, Hadoop, Mahout, libsvm.

Relevant Course Work

Digital Logic and Processors, **Data Structures**, **Computer System Organization**, **Algorithms**, **Operating Systems**, **Introduction to Databases**, **Graphics**, **Artificial Intelligence**, **Database Systems**, Digital Signal Analysis and Applications, Engineering Systems, **Natural Language Processing**, Principles of Programming Languages, **Statistical Methods in AI**, **Cloud Computing**, Product Design and Engineering, **Information Retrieval and Extraction**, **Computer Networks**, **Distributed Systems**, **Topics in Information Access**, **Artificial Neural Networks**, **Principles of Information Security**, **Concurrent Data Structures**, **Machine Learning**.

Organizational and Management Experience

- **Sports Captain of Prithvi house.**
- **Captain of the batch cricket team.**
- **Member of the Student Parliament** of IIIT-Hyderabad.
- **Member of the college cricket team.**
- **Member of the college football team.**
- Organized **Futsal**, a mini football event for **Felicity**, 2011.

Declaration

I hereby declare that the above information is true to the best of my knowledge.

End of Curriculum Vitae