Nitesh Surtani

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Objective:

To keenly devote my work in the field of Language technology and contribute towards ongoing novel researches in the field with best efforts. I am interested in gaining knowledge from a reputed organization, to enhance my skills and blend it with an element of practicality, so that I can serve the community with originality.

Educational Qualification:

Year	Degree/Certificate	University/School	Score
2008-12	B.Tech in Computer Science and Engineering Dual Degree	International Institute of Information Technology (IIIT), Hyderabad, India	7.46/10
2008	All India Senior Secondary School Certificate Examination	Kalka Public School, Delhi	83.2%
2006	All India Secondary School Examination	Jingle Bell School, Faizabad (UP)	90%

Research Interests:

- Artificial Intelligence
- Natural Language Processing
- Machine Learning

At Present:

I am currently an M.S. by research student at Language Technologies Research Centre (LTRC), IIIT-Hyderabad. My area of specialization is Natural Language Processing. Currently, I am working on the problem of "Event Identification" as part of my M.S. project under the guidance of Dr. Soma Paul.

Academic Achievements:

- Secured an All India Rank of 5494 in Joint Entrance Examination (IIT – JEE) - 2008
- Secured an All India Rank of 2491 in All India Engineering Entrance Examination AIEEE -2008.

Publications:

- Nitesh Surtani, Khushboo Jha, Soma Paul. *Issues with the Unergative/Unaccusative Classification of the Intransitive Verbs*. In: Proceedings of 4th International Conference on Asian Language Processing (IALP), Penang, Malaysia, 2011.

Research Work:

- **Event Identification** *GUIDE: Dr. Soma Paul*
  (i) This work aims at building a tool that automates the process of event identification in the text in Hindi.
  (ii) Event identification has many applications including Parsing, Document clustering, Identification of Complex Predicates.
- **Classification of Intransitive Verbs in Hindi** *GUIDE: Dr. Soma Paul*
  (i) This work abandons a strict two-way distinction of intransitive verbs and proposes that a tripartite classification handles the distribution of intransitive verbs more efficiently.
  (ii) The work provides an innovative measure to classify the verbs using a diffusion chart to show the diffusive distribution of the verb.
  (iii) A SVM-based model is designed to show that a tripartite classification handles the classification of the intransitive verbs efficiently than the bipartite classification. The results have shown that a Language-Dependent model outperforms a Language-Independent model.
  (iv) This classification is useful in NLP tasks such as Machine Translation and Parsing.
- **NLG-Aura Project** *GUIDE: Prashanth Mannem*
  (i) Automated User-centered reasoning and acquisition (AURA) system, is a project IIIT Hyderabad is collaboratively working with Stanford Research Institute for question answering on biology domain.
  (ii) The aim of this project is to answer questions for biological text given the knowledge bases.
  (iii) We were handling the Natural Language Generation part which included the “How many type questions” and their answer generation.

- **Machine Translation System for Tourism** *GUIDE: V.Sriram*

(i) English-Hindi machine translation system that can help tourists visiting our city(Hyderabad) to communicate with local people.
(ii) GIZA++, Moses and SRILM were used as the statistical MT tool to train on the self-created English-Hindi parallel corpus.
(iii) We also used speech tools (speech-to-text and text-to-speech) in the system.

- **Automatic Building of Concept Map from a Structured Text** *GUIDE: Prashanth Mannem*

(i) Conceptual maps are hierarchical structures for visualizing relationships among concepts.
(ii) We designed a novel approach to automate the process of building of concept map for Wikipedia text(structured text, in sense that it provides links to other concepts) in biology domain.
(iii) Extracting concept-relation triplets (basic units of map) using Stanford Dependency Parser, Semantic Role labeler, SemNet.

Other Research Related Work:

- Worked as a Research Assistant in the AURA (Automated User-centered reasoning and acquisition) project at IIIT-Hyderabad, in collaboration with Stanford Research Institute.
    - Handling the Natural Language Generation part.
- Working as a Research Assistant in ILMT, (Indian Language Machine Translation) at IIIT-Hyderabad, a project Funded by Dept. of Information Technology, Govt. of India.
    - Development and Maintainance of Word generation and Vibhakti Modules

Skill Set:

Operating Systems	Linux, Windows
Programming Languages	C, C++ (basic), Java, Scheme
Scripting Languages	Python, Bash
Web Tools	HTML, PHP, CSS,Web2py, JavaScript, JQuery
Datbase Management System	MySQL
Libraries &API	OpenGL, Apache-Nutch
Programming Environment	Vim, Eclipse
Linguistic Tools	Moses, GIZA++, Stanford Parser, NER, Wordnet, SRILM, Concept Net
GUI Tools	Qt

Relevant Courses Completed:

Artificial Intelligence, Machine Learning, Natural Language Processing, NLP Applications: IE and MT, Computational Linguistics, Pattern Recognition, Time and Event in Discourse.

Other Projects:

1) Project Name: Courier Portal
Description: I developed this portal, which is active for the students of IIIT-H to serve as a platform where they can check their couriers.
Technology : Php with MySQL, JavaScript and JQuery is used.

2) Project Name: Building a Von Neumann Computer
Faculty: Prof. K. Vishwanath
Description: The aim of this project was to build a simple computer implementing the basic operations performed by a computer in a 4-tuple format given by Von Neumann, basically providing a GUI for a student to learn assembly languages. This project was selected for R&D showcase.
Technology : C++, QT (UI framework)

3) Multi-Feed Image Search Engine:

This project was done as a part of an event HACKU '10 organised by Yahoo R&D in IIIT-H. The objective was to develop a image search website which provides user with the top set of images from various search engines. We developed this in 24 hours of continuous work.

Extra Curricular Achievements:

- Participated in various cultural events like Skit, Group Song etc.
- Participated in various sports activities like Football, Cricket, Basketball, carom etc.
- Organized various football events in college.