

Education

University of Maryland, College Park

PhD - Computer Science; GPA: 3.85/4.0

2013 - 2018 (expected)

Focus: Natural Language Processing

Advisors: Hal Daumé III, Philip Resnik

Veermata Jijabai Technological Institute

Mumbai

Bachelor of Technology - Computer Engineering; CPI:9.4/10

May 2011

Publications

- **Sudha Rao**, Yogarshi Vyas, Hal Daumé III, and Philip Resnik. **Parser for Abstract Meaning Representation using Learning to Search** *arXiv:1510.07586*
- **Sudha Rao**, Allyson Ettinger, Hal Daumé III, and Philip Resnik, **Dialogue focus tracking for zero pronoun resolution**, NAACL 2015, Denver, Colorado, June 2015.
- Suzanne DSilva, Neha Joshi, **Sudha Rao**, Sangeetha Venkatraman, and Seema Shrawne. **Improved Algorithms for Document Classification & Query-based Multi-Document Summarization**, *International Journal of Engineering and Technology* vol. 3, no. 4, pp. 404-409, 2011

Research Experience

- **Semantics for biology** *Summer 2015*
 - Worked on identifying protein interactions in biology texts using **Abstract Meaning Representation (AMR)** of sentences.
 - This work is part of DARPA project named *Big Mechanism* and is in collaboration with **Dr. Daniel Marcu** and **Dr. Kevin Knight** at **Information Science Institute, USC**.
- **Semantic Parsing** *Fall 2014*
 - Worked on automatically learning **Abstract Meaning Representation (AMR)** for English sentences using **SEARN** (Search based Structured Prediction) technique.
- **Machine Translation** *Spring 2013*
 - Worked on developing a **Sequence Labeling** model for restoring **dropped pronouns** when translating SMS text from Chinese to English.
 - This work was done as a part of **IBM's BOLT** project.
- **Query based Multi-document Summarization** *Spring 2011*
 - Analyzed and **improved a Hypergraph based technique** for summarization to make it less processor intensive.
 - Designed a simple algorithm for query based multi-document summarization using **k-means clustering** with results comparable to the Hypergraph based technique.

Work Experience

- **NVIDIA Graphics Pvt. Ltd.** Pune
System Software Engineer *July 2011 – April 2013*
 - Designed and implemented a test infrastructure for Tegra Driver on varied mobile operating systems and platforms.
 - Worked on in-house mobile tools being developed as a part of *Planning, Infrastructure & Operations* team.
- **Microsoft India Development Center** Hyderabad
Software Development Engineer - Intern *May 2010 – July 2010*
 - Worked on Data Protection Management.

Teaching Experience

CMSC 131 - Object Oriented Programming Fall 2013

Projects

- **Predicting clinical depression** *Spring 2013*
 - We used **Facebook status updates** to predict neuroticism among people.
 - This project was done as a part of the **Computational Linguistics** course.
- **Farmers Buddy** *Fall 2009*
 - We developed a first of its kind portal to be accessible via Internet allowing users, especially farmers, to obtain information regarding various activities involved in farming and providing a platform for interaction between the different users of the system.
 - This project was developed as part of **IBM's The Great Mind Challenge**, 2009, and was among the **Top 20** projects all over India.

Honours/Awards

- Scholarship to attend the **Grace Hopper Celebration** conference 2014 and 2015.
- Recipient of **Dean's Fellowship** at University of Maryland, College Park.
- Travel fund to attend **NIPS** conference 2013.
- Scholarship to attend the **Women in Theory** conference 2012 at Princeton University.
- Ranked **3rd** out of 70 students in the Computer Science department of VJTI.
- Recipient of scholarship award from **Sir Ratan Tata** Trust (2008, 2009 and 2010).
- **56th** rank in Maharashtra in MHT-CET examination held in May 2007 in Engineering Course.
Score: **(194 / 200)**

Technical Skills

- **Languages:** Python, MATLAB, Java, C++, C#, SQL, Perl
- **Web Technologies:** J2EE(JSP, Servlet), HTML, CSS, Javascript, AJAX

- **Databases:** Microsoft SQL, IBM DB2
- **Operating Systems:** Linux, OS X, Microsoft Windows

Relevant coursework

- **Graduate:** Computational Linguistics 1 & 2, Multi-lingual NLP, Prediction: Brain vs Machines, Analysis of Algorithms.
- **Undergraduate:** Advanced Algorithms, Approximation algorithms, Intelligent systems.