

# Shruti Singh

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## EDUCATION

### INDIAN INSTITUTE OF TECHNOLOGY, GANDHINAGAR

Ph.D. Computer Science  
August, 2019 - Present

### DHIRUBHAI AMBANI INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGY

Bachelor (Hons.) in Information and Communication Technology with Minor in Computational Science  
2013 - 2017 | Gandhinagar, Gujarat  
CGPA: 8.25 / 10.0

### CENTRAL BOARD OF SECONDARY EDUCATION

Higher Secondary School  
Mathematics & Computer Science  
2013 | Kendriya Vidyalaya ONGC  
Ahmedabad, Gujarat  
Aggregate: 95.6%

## RESEARCH INTERESTS

Natural Language Processing  
Information Retrieval  
Artificial Intelligence

## SKILLS

### PROGRAMMING

Over 5000 lines:

Java • Python

Over 1000 lines:

C • C++

### TECHNOLOGIES

Elasticsearch • MongoDB • MySQL  
Apache Kafka • Apache Lucene • Flask  
Docker • Git • Sklearn • Gensim  
Stanford CoreNLP • Wordnet • NLTK  
Spacy • OpenCV • OpenMP • CUDA

## KEY COURSEWORK

Information Retrieval • Data Mining & Warehousing • Data Analysis & Visualization • Complex Networks • Modelling & Simulation • High Performance Computing • GPU Programming • Graph Theory • Nonlinear Science

## RESEARCH & INDUSTRY EXPERIENCE

### RAXTER.IO | RESEARCH ENGINEER

Feb 2018 - June 2019 | Gandhinagar, Gujarat

- Implemented a system for IE from scientific literature. Extracted the problem statement, approach, evaluation techniques, results and datasets for the purpose of scientific literature graph construction.
- Implemented a Q-Learning based literature recommendation system that adapts to the evolving research need of the user with time.

### SPRINKLR INC. | PRODUCT ENGINEER

Jan 2017 - Feb 2018 | Gurgaon, Haryana

- Worked on near de-duplication of large scale incoming web data fetched from multiple sources, of the scale of 25 million documents/day, ensuring minimal latency.
- Implemented language detection module for close languages Malay and Indonesian.
- Setup the natural language pipeline for Asia Pacific languages on the Sprinklr Listening platform.

### RYGBEE INC. | RESEARCH INTERN

Sep 2015 - Aug 2016

- Developed a research paper recommendation system for user given problem statement. Team Size: 3

### KNOWLEDGE DISCOVERY AND MANAGEMENT LAB | RESEARCHER

May 2014 - Aug 2015 | DA-IICT | Mentor: Prof. Sourish Dasgupta

Worked on a description logic based ontology learning tool, DL0L.

- Numeric-Unit Normalizer module to normalize numeric quantities written in natural language and occurrences of phrases representing magnitudes of physical quantities to standard SI units.
- Annotation module to determine similarity between sentences based on their SVO triples. Reconstructed the ancestral hierarchy of nouns from WordNet for efficient lookup to facilitate calculation of relatedness between nouns.

## ACADEMIC PROJECTS

- Cross Lingual Query Translation for Supporting Text Queries in Different Languages | Course: Information Retrieval
- Analyzing Patterns in Social Learning: Stack Overflow and the DOTA Community | Course: Complex Networks
- Character Recognition in Google Street View for Automated Geo-tagging using K-nearest neighbours | Course: Data Mining and Warehousing
- Parallelization of CYK Syntactic Parsing on GPU | Course: Introduction to GPU Programming
- Cellular Automata Simulation to Model Forest Fire Spread | Course: Modelling and Simulation

## AWARDS

- Certificate of merit for being in top 1.5% students in the CBSE AISSE 2013.
- 'Dhirubhai Ambani SSC Merit Reward' for outstanding performance at CBSE AISSE 2011.