# Shruti Singh

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# **EDUCATION**

# DHIRUBHAI AMBANI INSTITUTE OF INFORMATION AND

**COMMUNICATION TECHNOLOGY**BACHELOR (HONS.) IN INFORMATION

AND COMMUNICATION TECHNOLOGY WITH MINOR IN COMPUTATIONAL SCIENCE

2013 - 2017 | Gandhinagar, Gujarat

# CENTRAL BOARD OF SECONDARY EDUCATION

HIGHER SECONDARY SCHOOL MATHEMATICS & COMPUTER SCIENCE 2013 | Kendriya Vidyalaya ONGC Ahmedabad, Gujarat

# 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

Operating Systems
Database Management Systems
Software Engineering
Object Oriented Programming
Data Mining and Warehousing
Data Analysis and Visualization
Information Retrieval

# RESEARCH INTERESTS

Natural Language Processing Machine Learning Text Mining Knowledge Graphs Ontology Construction

# **ACTIVITIES & SOCIETIES**

Core Committee Memeber - DA-IICT Programming Club Editor - Entelechy (University Magazine) Co-organizer & Speaker - ACM DA-IICT Chapter

# **EXPERIENCE**

#### RAXTER.IO | RESEARCH ENGINEER

Feb 2018 - Present | Gandhinagar, Gujarat

- Implemented a system that extracts key information from a research paper such as the problem statement, approach, evaluation techniques, results and datasets for the purpose of scientific literature knowledge 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

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

# RESEARCH

# RYGBEE INC. | RESEARCH INTERN

Sep 2015 - Aug 2016

- Worked in the team that created a tool which recommends research papers and other resources to the user given a problem description.
- Worked on the back-end of the literature recommendation system. Used Python and Elasticsearch.

#### KNOWLEDGE DISCOVERY AND MANAGEMENT LAB | RESEARCHER

May 2014 – Aug 2015 | DA-IICT | Mentor: Prof. Sourish Dasgupta For a description logic based ontology learning tool DLOL, worked on:

- 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 AISSCE 2013.
- 'Dhirubhai Ambani SSC Merit Reward' for outstanding performance at CBSE AISSCE 2011.