

# Rishabh Joshi

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## Education

### Birla Institute of Technology and Science

Pilani, Rajasthan

B.E. (HONS.) IN COMPUTER SCIENCE

Aug. 2014 - Present

CGPA 9.20

### The Mother's International School

New Delhi

CBSE

2002 - 2014

2014 95.6 % Class XII  
2012 10 GPA Class X

## Relevant Courses

Neural Networks & Fuzzy Logic, Information Retrieval, Parallel Computing, Computer Graphics, Pattern Recognition, Effective Public Speaking, Creative Thinking, Srimad Bhagavad Gita

## Experience

### Indian Institute of Science < MALL Lab (Prof. Partha Talukdar)

Bangalore, India

RESEARCH INTERN

Jan. 2018 - Exp. Jul. 2018

- Work focused on creating a Domain Specific Knowledge Graph in a Never Ending Learning System (NELL)
- Worked on the problem of **Relation Extraction** using **Distant Supervision**
- Worked on **Wikidata** Knowledge Graph for the problem of **Entity Linking**

### Samsung Research Institute

Bangalore, India

SUMMER INTERN

May. 2017 - Jul. 2017

- Worked on the Data Link Layer for **5G network** as part of the Communications Protocol Team
- Created tools to aid in 5G packet generation and testing for MAC, RLC and PDCP sub-layers (focus on RLC)

### Indian Institute of Remote Sensing, ISRO

Dehradun, India

RESEARCH INTERN

May. 2016 - Jul. 2016

- Worked on **DataCube**, an analytical framework to provide an effective storage, retrieval and analysis of large earth observation datasets
- Determined the best GIS image storage formats for storing temporal satellite data
- Developed the core API and execution engine with algorithm templates for product generation

## Projects

### BITS LifeGuard - Wearables, Pervasive and Network Research Lab

BITS Pilani, India

MENTOR : PROF. RAHUL BANERJEE

Nov. 2015 - Jan. 2018

- Worked as a **Research Assistant** to develop a fault-tolerant, cost-effective smart driver safety jacket to prevent road accidents.
- Worked on adaptive learning aspects of body sensor networks for **Sensor Fusion**
- Worked on finding and implementing accurate sensor fusion algorithms to classify driver reflex degradation

### Distance Iris Recognition

BITS Pilani, India

MENTOR : PROF. KAMLESH TIWARI

Jan. 2017 - May. 2017

- Worked with Dr. Kamlesh Tiwari on creating a biometric Iris Recognition solution for **Low Quality Distance** Iris Images
- Used **Haar Cascade** Classifiers and **Histogram of Oriented Gradients(HOG)** for eye segmentation followed by thresholding and occlusion removal
- Used **Gabor filters** and Hamming Distance for normalization and matching of the Iris Codes

### Ad Effectiveness and their impact on Sales

BITS Pilani, India

MENTOR : PROF. SANGEETA SHARMA

Aug. 2017 - Dec. 2017

- Used NLP tools and Trends data to correlate Ads with Sales
- Correlated YouTube comment sentiments with effectiveness of Ad

### Mini Projects

BITS Pilani, India

Aug. 2016 - Present

- **PSO Optimized K-Means** : Studied and implemented Particle Swarm Optimization to improve clustering performance of K-Means
- **Heading Generation using Speech Phonetics** : Created a crawler to obtain clean speech audio and generated a summary and its heading using phonetics and tone of the speaker
- **Parallel BranchAndBound** : Implemented a parallel skeleton for BranchAndBound to solve TSP and Knapsack
- **One Class Classification** : Used Extreme Learning Machines to solve the problem of OCC for Sensor Data

## Honors & Awards

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- 2017 **1st, Campus ML Hackathon** organized by **MapMyIndia** on **Kaggle** in APOGEE
- 2017 **3rd, ML Hackathon** organized by **DE SHAW** on **HackerEarth**
- 2016 **2nd, E-Yantra**, a robotics competition organized by MHRD and **IIT-Bombay**
- 2016 **National Finalist**, Micorsoft's **Build The Shield** CTF competition
- 2015 , Recipient of Institute **Merit Scholarship** for academic excellence
- 2014 **1574**, All India Rank (AIR), IIT-JEE
- 2014 , Recipient of Govt. Of India, **Inspire Scholarship** (top 1% in CBSE)
- 2014 **Board Topper**, Chemistry, CBSE(100/100)
- 2014 **School Topper**, Computer Science, CBSE(99/100)
- 2012 , Junior Science Talent Search (**JSTS**) **Scholar**, Dept. of Science, Govt. of India

*BITS Pilani, India*  
*Online*  
*IIT Bombay, India*  
*BITS Pilani, India*  
*BITS Pilani, India*

## Position of Responsibility

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### Data Structures and Algorithms

TEACHING ASSISTANT

- Helmed two lab sections and was Jury for the Online Judge with the responsibility of assisting 200+ students

*BITS Pilani, India*  
*Jan. 2017 - May. 2017*

### Embryo Club

EXECUTIVE COORDINATOR

- Responsible for handling all the finances of the club, increasing the amount from 20,000 to 1,80,000
- Organized an Oasis Talk by Amish Tripathi handling all expenses and negotiations

*BITS Pilani, India*  
*Apr. 2016 - Apr. 2017*

### ACM BITS Chapter

JOINT ACTIVITIES COORDINATOR

- Responsible for all the activities of ACM throughout the year, successfully conducting more than 8 events

*BITS Pilani, India*  
*Aug. 2015 - Aug. 2016*

## Skills

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**Languages,** C, C++, Python  
**Machine Learning,** Numpy, Tensorflow, PyTorch, scikit-learn, Keras  
**Databases,** MySQL, MongoDB, ElasticSearch