

# Rishabh Joshi

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## EDUCATION

### BITS PILANI

B.E. (Hons.) Computer Science  
Expected Aug 2018 | Pilani, India  
Cum. GPA: 9.28 / 10

### AISSCE (CLASS XII)

Mother's International School  
Grad. May 2014 | New Delhi, India  
Score: 478 / 500

### AISSSE (CLASS X)

Mother's International School  
Grad. May 2012 | New Delhi, India  
GPA: 10 / 10

## LINKS

Facebook://rishabh.joshi.047  
GitHub://rishabhjoshi  
LinkedIn://rishabh-joshi-887351b2  
Codeforces://rishabhjoshi

## COURSEWORK

Information Retrieval  
Neural Networks and Fuzzy Logic  
Machine Learning  
Operating Systems  
Database Systems  
Computer Graphics  
Data Structures and Algorithms  
Object Oriented Programming  
Computer Architecture  
Computer Networks (ongoing)  
Design and Analysis of Algorithms (ongoing)  
Compiler Construction (ongoing)  
Parallel Computing (ongoing)  
Network Security (graduate course-ongoing)

## SKILLS

### PROGRAMMING

Over 3000 lines  
• C • C++ • Python

### Familiar

• x86 Assembler • Prolog • R  
• MySQL • Java • C# • OpenGL  
• Racket

### DATA ANALYTICS

• scikit-learn • GraphLab

## EXPERIENCE

### ISRO | SUMMER RESEARCH INTERN

May 2016 - July 2016 | Dehradun, India

- Developed the DataCube for Uttarakhand using GeoSpatial Technologies for IIRS
- Analytical framework provides effective storage, retrieval and analysis of GBs of satellite data
- Determined best GIS image storage formats for storing GBs of image data
- Developed the core API and Execution engines of the DataCube
- Created algorithm templates to obtain products from Satellite data on the web portal

## MAJOR PROJECTS

### BITS LIFEGUARD | MENTOR: DR. RAHUL BANERJEE | HOD CSE, BITS PILANI

Oct 2015 - Present | Research Assistant

- Developing a fault-tolerant, cost-effective smart driver safety jacket with real time monitoring of vital signs, to prevent road accidents and taking emergency action in the unlikely case an accident occurs
- Developed Bluetooth Authentication and intercommunication techniques for low computing capability sensor nodes
- Currently working on sensor fusion for LifeGuard

### WEARABLES SENSOR FUSION | MENTOR: DR. RAHUL BANERJEE

August 2016 - Present | Study Project

- Working on Adaptive learning aspects of Body Sensor Networks and sensor data fusion
- Finding and implementing accurate Sensor Fusion algorithms to classify driver stress using physiological sensors
- Measuring the accuracy of the models created on various public driving datasets

### E-YANTRA | IIT-BOMBAY | MHRD, GOVT. OF INDIA

18th March 2016 - 19th March 2016

- Represented BITS Pilani and came 2<sup>nd</sup> out of 57 teams from all over India in the finals of e-Yantra, a robotics competition
- Coded the Firebird-5 bot over a span of 3 months to solve the problem statement of a Hotel Room Service scenario

## MINI PROJECTS

### PSO OPTIMIZED K-MEANS

- Studied and implemented Particle Swarm Optimization and Ant Colony Optimization techniques to improve Clustering performance of K-Means

### HEADING GENERATION USING SPEECH PHONETICS

- Created web crawler to collect speech audio data and generated a summary and its heading by using phonetics and tone of the speaker

## ACHIEVEMENTS

2016 National finalist in Microsoft's Build The Shield CTF Competition  
2014/15 Recipient of Institute Merit Scholarship for academic excellence  
2014 1574 - AIR (All India Rank), IIT-JEE Examinaion (of 1 mil+)  
2014 Recipient of Govt. of India's INSPIRE scholarship (top 1% in CBSE)  
2014 Board Topper in Chemistry in Board Examination (100 / 100)  
2014 School Topper in Computer Science in Board Examination (99 / 100)  
2012 Junior Science Talent Search (JSTS) Scholar