



## RISHABH JOSHI

Course : B.E. (Hons.), Computer Science

Email : f2014102@pilani.bits-pilani.ac.in

Mobile : 9828621109

CGPA : 9.16



### ACADEMIC DETAILS

COURSE	SPECIALIZATION	INSTITUTE/COLLEGE	BOARD/UNIVERSITY	% CGPA	YEAR
XII	Science	The Mother's International School	CBSE	95.6	2014
X	General	The Mother's International School	CBSE	95	2012

### ELECTIVES/TECHNICAL PROFICIENCY

<b>Electives</b>	Neural Networks and Fuzzy Logic, Information Retrieval, Parallel Computing, Computer Graphics, Pattern Recognition, Effective Public Speaking, Creative Thinking, Srimad Bhagavad Gita
<b>Technical Proficiency</b>	C, C++, Python, Assembly, Prolog, Racket, MySQL, OpenGL

### SUMMER INTERNSHIP/WORK EXPERIENCE

<b>Samsung Research Institute, Bangalore</b>	<b>Jun 2017 - Jul 2017</b>
<ul style="list-style-type: none"><li>Worked on the Data Link Layer for <b>5G network</b> as part of the Communications Protocol Team</li><li>Created tools to aid in 5G packet generation and testing for MAC, RLC and PDCP sub-layers (focus on RLC)</li></ul>	
<b>Indian Institute of Remote Sensing (ISRO), Dehradun</b>	<b>May 2016 - Jul 2016</b>
<ul style="list-style-type: none"><li>Worked on <b>DataCube</b>, an analytical framework to provide an effective storage, retrieval and analysis of large earth observation datasets</li><li>Determined the best GIS image storage formats for storing temporal satellite data</li><li>Developed the core API and execution engine with algorithm templates for product generation</li></ul>	

### PROJECTS

<b>BITS LifeGuard - Wearables, Pervasive and Network Research Lab</b>	<b>Nov 2015 - Till Present</b>
<ul style="list-style-type: none"><li>Worked as a <b>Research Assistant</b> with Dr. Rahul Banerjee to develop a fault-tolerant, cost-effective smart driver safety jacket to prevent road accidents.</li><li>Currently working on adaptive learning aspects of body sensor networks for <b>Sensor Fusion</b></li><li>Worked on finding and implementing accurate sensor fusion algorithms to classify driver reflex degradation</li></ul>	
<b>Distance Iris Recognition</b>	<b>Jan 2017 - May 2017</b>
<ul style="list-style-type: none"><li>Worked with Dr. Kamlesh Tiwari on creating a biometric Iris Recognition solution for <b>Low Quality Distance Iris</b> Images</li><li>Used <b>Haar Cascade Classifiers</b> and <b>Histogram of Oriented Gradients(HOG)</b> for eye segmentation followed by thresholding and occlusion removal</li><li>Used <b>Gabor filters</b> and Hamming Distance for normalization and matching of the Iris Codes</li></ul>	
<b>Mini Projects</b>	<b>Aug 2016 - Till Present</b>
<ul style="list-style-type: none"><li><b>PSO Optimized K-Means</b> - Studied and implemented Particle Swarm Optimization to improve clustering performance of K-Means</li><li><b>Heading Generation using Speech Phonetics</b> - Created a crawler to obtain clean speech audio and generated a summary and its heading using phonetics and tone of the speaker</li><li><b>Parallel BranchAndBound</b> - Implemented a parallel skeleton for BranchAndBound to solve TSP and Knapsack</li></ul>	

### POSITION OF RESPONSIBILITY

<b>Teaching Assistant, Data Structures and Algorithms</b>	<b>Jan 2017 - May 2017</b>
<ul style="list-style-type: none"><li>Helmed two lab sections and was Jury for the Online Judge with the responsibility of assisting 200+ students</li></ul>	
<b>Executive Coordinator, Embryo Club</b>	<b>Apr 2016 - Apr 2017</b>
<ul style="list-style-type: none"><li>Responsible for handling all the finances of the club, increasing the amount from 20,000 to 1,80,000</li><li>Organized an Oasis Talk by Amish Tripathi handling all expenses and negotiations</li></ul>	
<b>Joint Activities Coordinator, ACM BITS Chapter</b>	<b>Aug 2015 - Aug 2016</b>
<ul style="list-style-type: none"><li>Responsible for all the activities of ACM throughout the year, successfully conducting more than 8 events</li><li>Organized ICL and Checkmate in APOGEE with a participation of 500+</li></ul>	

### ACHIEVEMENTS AND AWARDS

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

### EXTRA CURRICULAR ACTIVITIES

- Volunteer for National Service Scheme, BITS Pilani Chapter (Aug'14 - Present), taught Computers to people in Pilani and nearby villages