

GURPREET SINGH

B. Tech, Department of Computer Science and Engineering

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ACADEMIC DETAILS

Year	Degree	Institute	CPI/Percentage
2015-	B.Tech (Computer Science & Engineering)	Indian Institute of Technology	8.8/10.0
2014-2015	Class XII (CBSE)	Delhi Public School	94.4%
2012-2013	Class X (CBSE)	Delhi Public School	9.6/10.0

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank, 174** in the **JEE Advanced** examination amongst 1.5 lakh students (2015)
- Kishore Vaigyanik Protsahan Yojana (KVPY) Scholar** (Qualified 2nd Stage) (2015)

TECHNICAL SKILLS

- Programming Languages:** C, C++, R, Python, Octave/MATLAB, Java
- Assembly Languages:** MIPS, Verilog
- Scripts:** Bash, VBScript
- Machine Learning:** Basic Machine Learning Methods (implementations on R) and Concepts
- Tools:** gnuplot, Latex, Photoshop, Git
- Web Development:** PHP, Javascript, JQuery, MySQL, CSS/HTML, Angular.js, Node.js

PROFESSIONAL EXPERIENCE

- EXXAMM.COM (Internship)** (Exxamm.com, Delhi, Jan'16 - Dec'16)
 - Worked as an intern in this venture, which provides free learning tool for many national competitive exams in India such as JEE Mains and Advanced, NEET, NDA, Olympiads, etc.
 - Worked as the main full stack developer behind the project
 - Lead architect of the core content engine and front end web interface
- CONTENT CURATION TOOL (Internship)** (Inmobi, Bangalore, Dec '15)
 - Worked in the Ono team in Strategic Advertising for better product discovery and user experience
 - Developed a Curator Tool for an App to scrape and render information from the web
 - Designed the main interface and set up the main engine to scrape various websites

PROJECTS

- SMART IMAGE ADVERTISING** (Google DevFest, Nov'16)

- **Objective:** Develop a web-app for smart advertising using image analysis
 - **Approach:**
 - i. Developed a web-app with controls to upload an image through url
 - ii. Backend program to detect objects in an image during upload using **Clarifai API**
 - iii. Objects stored as tags in database, and used to search through products from different e-commerce websites such Ebay, Amazon, etc. using their **Affiliate API**
 - **Tools/Languages Used:**
PHP, MySQL, HTML/CSS, Javascript/JQuery, Clarifai API, Ebay & Amazon API's
- **ROTATING CAR PARKING** *(TA202 Course Project, Jan'17 - Apr'17)*
 - Working in a team of 8 people to develop a rotating car parking
 - Approach is to make a parking frame with a worm gear to enable one sided revolution
 - **Usage:** To allow multiple cars to be stacked with lesser parking space
 - **AUTO ROTATING SOLAR PANEL** *(TA201 Course Project, Aug'16 - Dec'16)*
 - Rotating solar panel frame, controlled using an Arduino
 - Acted as the CEO of the group project (group of 4 people)
 - Designed the business plan and marketing brochure for the project
 - **Usage:** To allow higher levels of electricity production in solar farms
 - **SERVICE PROVIDER MODEL** *(Microsoft Code.Fun.Do, Oct'15)*
 - **Object:** To develop a desktop/mobile app which provides services
 - **Approach:** Created an interface for users to find services and an interface for service providers to register
 - **Tools/Languages Used:**
Visual Studio, C#, XAML

UNSUPERVISED PROJECTS

- **FAT.JAPAN** *(Ongoing)*
 - Japanese Language E-Learning Website using Angular.js
 - Developed an example based learning platform
 - **Tools/Languages Used:**
Angular.js, MySQL, HTML/CSS, Javascript

<http://www.cse.iitk.ac.in/users/guggu/fat-japan/>
- **FAT.CAROUSEL** *(Inspired by Owl Carousel)*
 - Developed a JQuery extended plugin for simple embedding of stylish image based carousel
 - Currently supports only images
 - Completely responsive, with advanced button and scroll controls
 - **Tools/Languages Used:**
HTML/CSS, Javascript

<http://www.cse.iitk.ac.in/users/guggu/plugins/fat-carousel/>

RELEVANT COURSEWORK

COMPUTER SCIENCE AND ENGINEERING

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|---------------------------------------|-----------------|
| 1. Data Structures and Algorithms (*) | (IITK, 4th Sem) |
| 2. Computer Organization (*) | (IITK, 4th Sem) |
| 3. Computing Laboratory (*) | (IITK, 4th Sem) |
| 4. Abstract Algebra (A) | (IITK, 3rd Sem) |
| 5. Discrete Mathematics | (IITK, 3rd Sem) |
| 6. Introduction to Mathematical Logic | (IITK, 3rd Sem) |
| 7. Fundamentals of Computing (A*) | (IITK, 1st Sem) |

MATHEMATICS

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|-----------------------------------|-----------------|
| 1. Probability and Statistics (*) | (IITK, 4th Sem) |
| 2. Linear Algebra | (IITK, 2nd Sem) |
| 3. Real Analysis and Calculus (A) | (IITK, 1st Sem) |

MISCELLANEOUS

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|-------------------------------------|-----------------|
| 1. Machine Learning | (Coursera) |
| 2. Introduction to Economics (*) | (IITK, 4th Sem) |
| 3. Numerical Methods in Engineering | (IITK, 3rd Sem) |
| 4. General Chemistry | (IITK, 2nd Sem) |
| 5. Introduction to Sociology | (IITK, 1st Sem) |

(* - Ongoing Course) (A* - Excellent Performance) (A - Very Good Performance)

Position of Responsibility

- **ACADEMIC MENTOR** (*Counselling Service, IITK*) (Jul '16 - Apr '17)
 - Worked as an academic mentor for **Fundamentals of Computing**
 - Took multiple doubt clearing sessions, both hall level and institute level
 - Took multiple institute level classes and also gave one-on-one tutoring to a few students

Extra-Curricular Activities

- Completed one year Japanese Language course under the IITK FLP Programme
- Participated in Table Tennis in an Inter Hall Sports Competition
- Participated in other Inter Hall Competitions such as Black Box (Esoteric Language Competition), Electromania (Electronics Competition), and Fresher's 3X3X3 (Rubik's Cube Competition)
- Winner in Crime Run with a team of four people (Inter Hall Competition)
- Worked as a volunteer in Table Tennis, UDGHOSH'15