

# SHASHWAT SHIVAM

Computer Science and Engineering  
Indian Institute of Technology, Delhi

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## ACADEMIC DETAILS

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Year	Degree	Institute	CGPA/Percentage
2016-2020 (Current)	B.Tech in Computer Science and Engineering	Indian Institute of Technology Delhi	9.82 <b>Institute Rank 3</b>
2016	Class XII, CBSE	St.Joseph's Co-Ed School	96.2%
2014	Class X, CBSE	St.Joseph's Co-Ed School	10.00

## SCHOLASTIC ACHIEVEMENTS

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- Secured **All India Rank 82** in Joint Entrance Exam Advanced - 2016 among 200 Thousand candidates.
- Won **IITD Semester Merit Award** in every semester given to **top 7%** of all the students.
- Ranked in **Top 0.01%** among 2 million candidates appearing in Joint Entrance Examination(JEE Mains-2016).
- Qualified **KVPY** Exam in 'Kishore Vaigyanik Protsahan Yojana' by Indian Institute of Science given to top 1%.
- Became a National Talent Search Examination (**NTSE**) scholar for being in top 1000 at National level in 2014.
- Ranked in Top 1% in India in **NSEP,NSEC** and **NSEA** (National Standard Examinations ).
- Awarded **Student of The Year** on graduating Higher Secondary.

## EXPERIENCE

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### Web Development Internship

Anhad Music, May-July 2017

- Developed a Django based MVC back end for new website along with models and relations for events and members.
- Migrated database from old NoSQL based system to SQL system using python script.
- Provided API endpoints for Android application using Rest API Framework.
- Setup Social login system along with direct login from social networks like Facebook, Google etc.

## PROJECTS

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### Universal Asynchronous Receiver Transmitter (UART)

Prof. Anshul Kumar, October-November 2017

- Built a UART with the help of FPGA board and VHDL language capable of transmitting data to computer.
- Implemented the design to transmit ASCII characters and pre-saved messages at 9600 baud rate via USB cable.

### Elevator Control System

Prof. Anshul Kumar, September-October 2017

- Created a lift control system using VHDL with the ability to receive requests from inside or outside the lift.
- Added functionality to resolve requests to provide fastest possible lift routes to requested floors.
- Achieved the proper working of the system by creating FSM chart describing various states of lift.

### Hindi Named Entity Recognition

OpenEd AI Hackathon, July-Aug 2017

- Implemented named entity recognition system to detect the various entities in a sentence in Hindi language.
- Used vocabulary library to train model using the pre-built python CRF suite library.

### Canteen App

Prof. M.Balakrishnan, May-July 2017

- Created an android application to note transactions happening within the lunch club and to display all user details.
- Setup MySQL database on a VM to store data of menu,users,balance etc. from android application.

- Setup API endpoints using PHP on a VM to upload data and keep application in sync with on-line database.
- Created website to visualize data of transactions and show instant accounting of specified time.

### **File Send App**

Dev Club IIT Delhi, May-July 2017

- Worked with a team to develop a web application capable of sending files from browser to browser.
- Used Socket.IO as a signaling server to exchange meta-data between users and to select partner to exchange data.
- Used WebRTC technology to initiate peer to peer connection between browsers.

### **Maze Solving Bot**

Robotics Club IIT Delhi, Dec 2016 - Jan 2017

- Made a fully autonomous maze solving robot using the Tremaux algorithm to find exit in a looped maze as part of competition in TechFest , IIT Bombay.
- Implemented code to turn at 90,135 and 180 degrees using 7 I.R. Sensors to detect path on the ground.
- Implemented the hardware and software design using an Arduino board.

## **RELEVANT COURSES**

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- **Computer Science:** (\*Courses currently pursuing)  
Data Structures & Algorithms\*, Discrete Mathematics\*, Digital Logic\*, Introduction to Computer Science.
- **Mathematics and Electrical Engineering:**  
Signals & Systems\*, Probability & Stochastic Processes\*, Calculus, Linear Algebra, Intro to Electrical Engineering.
- **Online:**  
Deep Learning (Udacity)\*, Intro to Machine Learning (Stanford, Coursera).

## **TECHNICAL SKILLS**

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- **Programming Languages:** C, C++, Python, Java, JavaScript, NodeJS, VHDL, PHP.
- **Frameworks:** Django, Bootstrap, JQuery, MongoDB, MySQL.
- **Programming Environments:** Git, Android Studio, LaTeX, Xilinx ISE Design Suite, Vivado.

## **EXTRA CURRICULAR ACTIVITIES**

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- Microsoft Student Partner since August-2017
- Member of DevClub IIT Delhi since March-2017
- Member of Robotics Club IIT Delhi from September 2016 - March 2017