Shashwat Shivam

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Academic Details

Year	Degree	Institute	CGPA/Percentage
2016-2020	B.Tech in Computer Science	Indian Institute of Technology	9.63
(Current)	and Engineering	Delhi	
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

- 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

Android App Development Internship

Primebook, December 2017

- Worked on custom launcher for desktop like usability on android environment.
- Added options to launcher menu for using system APIs to perform standard functions including settings, power on/off.
- Optimized launcher menu for faster launch and search indexing and added functionality to resize menu.

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

Infrared Image Skin Detection

Prof. Prathosh A.P., December 2017

- Collected and annotated dataset using Infrared Camera containing classes as skin / non-skin images.
- Predicted presence of skin in images using modified pre-trained VGG net further trained on new collected dataset,

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

• Computer Science:

(*Courses currently pursuing)

Programming Languages*, Computer Architecture*, Design Practices*, Data Structures & Algorithms, Discrete Mathematics, Digital Logic and System Design, 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

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

Extra Curricular Activities

- 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