# Divyanshu Saxena

INDIAN INSTITUTE OF TECHNOLOGY, DELHI 0882-608-0933 | dssaxena2011@gmail.com | www.cse.iitd.ac.in/~cs1160316

#### **EDUCATION AND ACADEMIC DETAILS**

Degree/Exam	Institution	CGPA/%age	Year
B.Tech, Computer Science & Engineering	Indian Institute of Technology, Delhi	8.382	2020 (Exp.)
ISC	City Montessori School, Lucknow	96.50%	2016
ICSE	City Montessori School, Lucknow	96.80%	2014

### **PROJECTS**

# **Person Counter and Display Device - DISA**

[under Prof. Subodh Kumar, May 2017-Present]

- This project was developed as a part of the **Design Innovation Summer Award (DISA).**
- Used OpenCV and Python to process images taken in a room to count the number of people in the specified range.
- Implemented on-site real-time processing using Beaglebone. Results can either be displayed or sent via mail to a pre-specified authority.

### Secure Access Logging with Vulnerability Analysis

[IoT Project, July 2017 – Present]

- Project ongoing under the mentorship of Samsung IoT Lab at IIT Delhi and is being done in two modules.
- First module is to develop a logging system in Iotivity to log every access to all the resources present and the second module of the system is a rule based vulnerability analysis module.

# **Maze solving Line following Bot**

[Winter Project in Robotics Club, Nov 2016 - Dec 2016]

- Developed a fully autonomous line following bot using Arduino, IR sensors, etc.
- Modified Dijkstra's algorithm for solving mazes by traversing through the maze first and then processing it to find the shortest path.

### **Road Accidents Data Portal**

[Indian Road Safety Campaign, Jun 2017 – Aug 2017]

- Developed a portal to get easy access to road crashes data in India and present it in an interactive manner.
- This portal was launched by the Ministry of Road Transport and Highways (MoRTH), India.

# **Study Portal**

[Dev Club, Apr 2017 – Aug 2017]

 Developed a crowd-contributed web portal, using Django framework, for study purposes for the students of IIT Delhi.

# RELEVANT COURSES

**Computer Science:** Introduction to Computer Science, Data structures\*, Digital Logic and System Design\*, Discrete Mathematical Structures\*, Special Module on Internet of Things\*

Mathematics: Linear Algebra, Calculus, Probability and Stochastic Processes\*

**Online:** Machine Learning\* (Stanford University)

\*Courses currently pursuing

# SCHOLASTIC ACHIEVEMENTS

- JEE (Advanced): Secured All India Rank 64 for admission to IITs among a total of 1.5 million students.
- **Kishore Vaigyanik Protsahan Yojana (KVPY):** Achieved **All India Rank 61** in KVPY organised by IISc, Bangalore and Department of Science and Technology, Government of India; was awarded a fellowship for the same.
- National Standard Examination in Physics (NSEP): Qualified NSEP twice in 2014-15 and 2015-16, being in top 1% in the country.
- National Standard Examination in Chemistry (NSEC): Qualified NSEC the year 2015-16, being in the top 1% in the country.
- National Talent Search Examination (NTSE): Selected as NTSE scholar in 2012, conducted by NCERT.

# TECHNICAL SKILLS

Advanced: Java, Python, HTML, CSS, JQuery, Git, Arduino

Intermediate: C++, Android, OpenCV, PHP, AngularJS, Django, Bootstrap, Autodesk Inventor, Linux, Iotivity,

VHDL, Xilinx ISE, Vivado

Basic: NodeJS, Shell, Visual Studio

#### EXTRA-CURRICULAR ACTIVITIES

# Indian Road Safety Campaign:

- o As a member of the Technical Arm of IRSC, worked on a road accidents data portal which was later launched by the Ministry of Road Transport and Highways (MoRTH).
- Supervised a Technical Internship of two IIT Delhi students with DIMTS (Delhi Integrated Multimodal Transit System Ltd.) and worked on technical collaborations with various companies in the field of road safety.

# • Software Development Club, IIT Delhi:

- Member since February 2017. Developed a crowd-contributed study portal for the use of IIT Delhi students.
- Actively participated in promoting applied computer science culture in the college.
- An Initiative for National Advancement (AINA): Member of AINA, which is a club aimed at grooming students so that they realise their duty as a part of the society.
- Robotics Club, IIT Delhi: Member from November 2016 to February 2017.
- Inter-Hostel Dance Team: Participated in Group Dance Event, in January 2017 and Duo+ Dance Competition, held in September 2017
- Best Fresher for the year 2016-17

# POSITIONS OF RESPONSIBILITY

- Secretary, Web Team, Indian Road Safety Campaign (Sept 2017 Present)
- Student Partner at Microsoft Student Partnership (MSP) Program (Aug 2017 Present): Selected to represent Microsoft at IIT Delhi
- Executive, Technical Arm, Indian Road Safety Campaign (Jan 2017 Aug 2017)
- Web Executive for Alumni Affairs and International Program, IIT Delhi (Jun 2017 Present) and Student Mentorship Program (SMP), IIT Delhi (May 2017 Present)
- Executive, Technical Arm, Indian Road Safety Campaign (Jan 2017 Sept 2017)