

# Swapnil Sharma

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## EDUCATION

### Indian Institute of Technology, Mandi, H.P., India

- B.Tech in Computer Science and Engineering Aug 2015 – Jun 2019
  - Cumulative GPA: 8.27 / 10.0

### Senior Secondary Level (RBSE Board) Shiv Jyoti Senior Sec. School, Kota (Raj.)

- Passed with 85% (Overall) 2013 – 2015
  - Scored 96% in PCM

### Secondary Level (CBSE Board) Delhi Public School, Bhilai (C.G.)

- Passed with 10.0 CGPA 2011 – 2013

## ONGOING PROJECTS

### 3D-HST API and Data Extractor, Space Telescope and Science Institute, NASA

- Working on STScI project, 3D-HST data extractor and API interface with Dr. Ivelina Momcheva (Mentor) and Mr. Ayush Yadav (full stack developer). During this project I worked on development of new API endpoints for single object search and developed a web interface for displaying the information of the objects in the catalogue. I also used various libraries to provide a stamp size picture of the object from actual 3D-HST observation from FITS files. Aug 2016 – Present
  - Technologies involve HTML, CSS, JS, Bootstrap, Flask and PostgreSQL.

### Quadcopter for Image Processing, IIT Mandi

- Building quadcopter from scratch using Ardupilot with objective to perform object identification and object tracking. It will be trained for specific situations like follow a football and click over-the-top graduation photos. We wish to build a robust product using minimum cost that can be used for research purposes. I am the leading the team of five students behind this project. Apr 2017 – Present
  - Various track-by-detection algorithms like Struck, MILTrack, OAB and OMCLP will be tested.

## SELF MOTIVATED PROJECTS

- **Home Automation System** using Arduino board with Android app interface Mar 2016
  - Used Arduino to switch lights, fans and electronic devices and developed an Android app to control via Bluetooth.
- **Intranet social networking website** for college students, teachers and staff members in 'Applied Database Practicum' course Sep 2016 – Nov 2016
  - Used HTML/CSS, JavaScript, PHP and MySQL following Material Design guidelines involving few complex SQL queries.
- Several Android apps: To-Do, anonymous chatting room and Biotechnology related gaming application. Jun 2016 – Jul 2016
  - Experience with Material Design, Threads, AsyncTask, JSON parsing, SQLite and Google Sign in integration.

## ACHIEVEMENTS

- Bagged second position in Avishkar '16 for building working model of Arduino based 'Automated Parking System' using Android app ticket system.

## HACKATHON

### TopCoder 12-hours hackathon

- Extensive complaint system API integration and web interface for govt. authorities, vendors and service providers.

## SKILLS

- **Languages:** C, C++, Java, Python
- **Front-end web development:** HTML, CSS, JavaScript(jQuery), AJAX, Jinja2
- **Back-end web development:** Flask, PostgreSQL, PHP, MySQL
- **Others:** Android and Arduino board development
- **Platforms:** Windows, Linux(Ubuntu), UNIX
- Full Stack developer

**RESPONSIBILITIES**   ▪ Co-coordinator of Space, Technology and Astronomy Cell (STAC), IIT Mandi  
                              ▪ Web Coordinator of Inter IIT Tech Meet '16 and Exodia '16, IIT Mandi

**CO-CURRICULAR  
ACTIVITIES**       ▪ Astronomy and astrophotography  
                          ▪ Playing guitar and singing  
                          ▪ Hiking and trekking

**INTERESTED IN**   ▪ Software and web development  
                          ▪ Database management  
                          ▪ Internet of things