

# Aman Singh

CS UNDERGRAD ·

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## Education

### IIT Mandi

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING (ONGOING)/2019

- Current CGPA : 7.67

*Mandi, Himachal Pradesh*

*Aug. 2015 - PRESENT*

### Marigold Public School, Noida

XII FROM CBSE BOARD

- Scored : 89.8 %

*Noida, U.P.*

*July. 2014*

### Marigold Public School, Noida

X FROM CBSE BOARD

- Scored : 9.8 CGPA

*Noida, U.P.*

*July. 2012*

## Courses

**Artificial Intelligence,  
Pattern Recognition,  
Computer Organization,  
Advanced Database Practicum,  
Introduction to Communicating and Distributed Processes,  
Introduction to Formal Concept Analysis(Coursera),  
Probability and Random Processes,  
Advanced Data Structures and Algorithms ,**

## Projects

### Data Mining-Modification of ECLAT/LCM algorithms

FORMAL CONCEPT ANALYSIS PROJECT

- Worked on modifying the ECLAT / LCM algorithm by Dr. Christian Borgelt to work on distributed systems. The algorithm is used to mine Formal Concepts to build concept lattices.
- Made programs and scripts to test the algorithm on larger dataset.
- Generated boolean context from the CSV file to mine Formal Concepts from it.
- Given the task to parse JSON file to CSV such that concepts could be mined from it.

*IIT Mandi*

*July. 2017 - Ongoing*

### Academic Project for Advanced Database Practicum Course

PANDORA - MUSIC STREAMING WEBSITE(RUBY ON RAILS)

- Developed this website using Ruby on Rails framework and MySQL database. Responsible for front-end, database schema and helped with back-end.

*IIT Mandi*

*3rd Semester*

### Project on implementation of Formal Concept Analysis

CLASSIFICATION OF LIBRARY BOOKS

- Built a concept lattice of library books using Orient DB for a more meaningful classification and arrangement.

*Central Library, IIT Mandi*

*June 2017 - July 2017*

### Using Arduino and AVR shield

VOICE CONTROLLED PICK AND PLACE ROBOT

- Won 3rd Prize in the robotics event of Inter-IIT Tech Meet.
- Worked on the program(written in C) and training of the AVR shield.

*Inter-IIT Tech-Meet*

*2nd Semester, Jan. 2016- Feb. 2016*

### Built as Coursework

PATTERN RECOGNITION MODELS/CLASSIFIER

- Built Bayesian, K-Means Clustering and Gaussian Mixture Models classifiers for assignments using python libraries(pandas, numpy, scipy, sci-kit learn).

*IIT Mandi*

*Aug. 2017 - Ongoing*

## Front-end and Webmaster

THE SOLAR LABS

Mandi, H.P.

Feb. 2016- June. 2016

- Developed the front-end of the main website and customer management system.
- Set up a WordPress blog for the Start-Up.

## Two player CLI game made in first semester

TIC-STACK-TOE

IIT Mandi

Aug. 2015- Sep. 2015

- Interactive command line game written in C with a colorful interface.

## Skills

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**Programming Languages :** C++, C, Python, Bash,  
**Tools:** Git, Ruby on Rails, OrientDB, Concept Explorer, MySQL, GNU Emacs, php, Arduino,  
**Jekyll, Wordpress, Python Libraries:** Scipy, Numpy, Pandas, Scikit-Learn ,  
**Competitive Programming ,**

## Extracurricular Activity

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### PC Programming Club

CORE MEMBER

IIT Mandi

Mar. 2017 PRESENT

- Selected core member and project mentor to the official Programming Club.

### Exodia (Annual Technical-Cultural Fest)

FINANCE HEAD AND CORE TEAM MEMBER

IIT Mandi

Sept. 2016 Aug. 2017

- Selected as the Finance head to the fest. Completed the tasks with integrity and responsibility.

### GCS (Guidance and Counselling Service)

STUDENT MENTOR AND MEMBER, GUIDANCE AND COUNSELLING SERVICE 2016 & 2017

IIT Mandi

2016 & 2017

- Provided counselling and guidance to freshers as a mentor.

## Honors & Awards

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### ACADEMIC

- 2016 **Teaching Assistant**, Introduction to Computation for Engineers course
- 2017 **Teaching Assistant**, Advanced Data Structures and Algorithms Course
- 2016 **Bronze Medal**, Inter-IIT Tech Meet 2016

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### SPORTS

- 2016 **Gold Medal**, Intra-College Basketball tournament
- 2015 **Silver Medal**, Inter-Year Sports Tournament(Basketball)

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