

# Sachin Chandani

Codechef : blue\_legend  
Github : sachin-chandani  
+91 9587712264  
sachin.chandani@students.iiit.ac.in

## Technical Skills

### Proficient In

- > C/C++(STL)
- > HTML, CSS, Bootstrap
- > UNIX/GNU
- > Computer System Architecture
- > C(embedded)
- > VLSI Designs, Micro-controllers

### Past Experience

- > Python, OpenCV
- > MATLAB, Node.js
- > LaTeX, Bash

### DevOps

- > Git, BitBucket

## Coursework

### Computer Science

- > Data Structures And Algorithms
- > IT Workshop
- > Computer System Organization
- > Time Complexity Analysis
- > Cache Management and Memory Hierarchy

### Mathematics

- > Probability & Random Processes
- > Linear Algebra/Graph Theory

### Electronics

- > Digital Logic and Processors
- > Embedded Hardware Designs
- > Linear Electronic Circuits
- > Digital Signal Processing

## Interests

- > Competitive Programming
- > Reading, Fiction
- > Traveling

## Education

**Bachelors of Technology in Electronics and Communication**  
IIIT-Hyderabad

July 2016 - Present

## Experience

**Web Administrator, Query Forum - IIIT Hyderabad**

May 2018 - Present

- Maintaining **frontend**, **backend** and **server** of the forum.
- Working with latest **WordPress** technologies.

**Full Stack Developer Intern, Merak.AI**

May 2018 - July 2018

- Digitization of menu cards** for food delivery companies based on **machine learning algorithms**.
- Dashboard development for state-of-art machine learning products.

## Projects

**Assistive Document Cropping - CamScanner**

Node.js OpenCV Python

- CamScanner like automated document detection and cropping over a plane background.
- User friendly interface with rotate and resize features.

**Sentiment Analysis - WordCloud**

NLP Python

- Sentiment analysis of latest tweets to create a heat-map using developer keys and NLP libraries.
- WordCloud creation using the most popular words in the analyzed tweets.

**Linux Shell**

Operating Systems C

- A linux like shell developed purely in C with all command sets properly implemented and tested.

**Shape Plotting of The Objects**

C(embedded) MATLAB Arduino

- Shape Plotting System which can plot 3 dimensional view of any object in x-y-z Cartesian system.
- The output can be used to for development purpose i.e. input to a 3D printer.

**Variations Resistant Sizing - Swarm Intelligence**

Artificial Intelligence C++ Python

- Transistor sizing for digital circuits which uses Artificial Swarm Intelligence/Ant Colony Optimization.
- The leakage of 45nm MGK full adder was reduced to 50% during testing.

**Heart Rate Monitoring using PPG Signal**

MATLAB Python Shell

- Uses PPG, ECG and Acceleration Signals to monitor heart rate.
- Signal Decomposition, Spectrum Peak Tracking and Sparse Signal Reconstruction.

**Bomberman Terminal Game**

Python

- UNIX terminal game based on original BOMBERMAN purely developed in python.
- Multiple difficulty levels with a colored interface.

**Other Minor Projects**

C++ Artificial Intelligence C(embedded) Circuit Designs

- **Obstacle Avoiding Bot** : Bot prototype which can detect obstacle and change its path.
- **Tic-Tac-Toe Bot** : An AI based Tic-Tac-Toe bot which ensures the fastest victory.
- **Audio Amplifier** : An amplifier circuit with gain and filter stages with qualitative score of 8.5/10.

## Achievements

- **CodeChef Snack Down**: Secured 244 rank all over the globe in pre-elimination round and qualified for elimination round with team name 'blue\_legend'.
- **Problem Setter, Felicity Buzz CodeCraft'17**: Successfully curated and tested original problems in the annual programming competition organized by IIIT-Hyderabad.

## Positions of Responsibility

- **Apex Member, IIIT Hyderabad** March 2018 - Present
- **Cultural Coordinator, VAYU House, IIIT Hyderabad** May 2018 - Present
- **Coordinator, Campus Life Committee, IIIT Hyderabad** July 2017 - Present
- **Core Team Member, Felicity-IIIT Hyderabad** November 2017 - January 2018
- **Logistics Representative, VAYU House, IIIT Hyderabad** May 2017 - May 2018