

Sachin Chandani

Codechef : blue_legend
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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

- Modifying the 'Search' feature, working with latest WordPress technologies.
- Maintaining frontend, backend and server of the forum.

Full Stack Developer Intern, Merak.AI

May 2018 - July 2018

- Digitalization 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.

Shape Plotting of The Objects

C(embedded) MATLAB Arduino

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

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.

Variations Resistant Sizing in MOSFET Transistors

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.

Linux Shell

Operating Systems C

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

Bombberman Terminal Game

Python

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

Other Minor Projects

C++ Artificial Intelligence C(embedded) Circuit Designs

- **Obstacle Avoiding Bot** : Dynamic bot prototype which can detect obstacle and change its path as per the requirements. The bot can be operated with or without using micro-controller.
- **Tic-Tac-Toe Bot** : An AI based Tic-Tac-Toe bot which ensures the fastest victory.
- **Audio Amplifier** : An audio amplifier circuit consisting of pre- amplification, 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.
- **JEE Mains 2016**: Ranked 9008 among 1.1 million participants.
- **JEE Advanced 2016**: Ranked 5936 among 2 lac selected candidates.

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 2017
- **Logistics Representative, VAYU House, IIIT Hyderabad** May 2017 - May 2018