

Sachin Chandani

Education

2016 - **Bachelors of Technology - Electronics and Communication.**
Present International Institute Of Information Technology(IIIT), Hyderabad

Work Experience

Summer 2019 **Summer Analyst**, GOLDMAN SACHS PVT. LTD.
-Worked on development of greedy/dynamic/linear programming based solutions to reduce the inefficiency of synthetic swaps and minimize firm's cost.
-Developed & deployed a web platform to efficiently query and visualize the data from an indexed data lake using logarithmic data structures.
-Improved the query time of SQL queries by dynamic programming & caching the data stats.

Monsoon **Web Administrator**, QUERY FORUM - IIIT HYDERABAD, .
2018 -Maintained frontend, backend and server of an interactive website for the freshers' to get clarifications for their queries

Summer 2018 **Full Stack Developer**, MERAK.AI .
-Digitization of menu cards for food delivery companies using machine learning algorithms.
-Dashboard development for state-of-art machine learning products.

Achievements

ACM - ICPC **Online Round.**
2018 -Member of team **TooManyBugs** which secured 445th position overall and 283rd position in Amritapuri region in ACM - ICPC 2018.

Competitive **Programming Contests.**
Programming -Placed 10th in the Amdocs Hackfest Hackathon 2019 online round among 8000+ participants.
-Placed 12th in the annual programming competition organised by IEM, Calcutta with 7000+ participants.
-336th rank in Google Kickstart'18 Round-F.
-Placed 59th in online round & qualified for on-site round of IIIT-Allahabad's annual programming competition - CodeRed.
-25th position all over the globe and 13th position in India in Codechef's monthly programming contest(August Lunchtime'18).
-244th position in the pre-elimination round of Codechef's Snackdown'17. Team: 'blue_legend'

Programming Profile.
Codechef: blue_legend, Max Rating: 1965(Purple)
Codeforces: Heisenberg, Max Rating: 1667(Expert)

Problem **Felicity Buzz - IIIT Hyderabad Codecraft.**
Setting Successfully curated and tested algorithmic problems in the annual programming competition organized by IIIT-Hyderabad.

JEE 2016 **Joint Entrance Exam 2016.**
-99.35 Percentile in JEE Mains 2016.
-5936 All India Rank in JEE Advanced 2016.

Projects

CamScanner **Automated Document Cropping.**
-CamScanner like automated document detection and cropping over a plane background.
Node.js, Python, OpenCV, HTML, CSS.

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| Heart Rate Monitoring | Heart Rate Monitoring Using PPG Signals. -Uses PPG, ECG and Acceleration Signals to monitor heart rate with Signal Decomposition, Spectrum Peak Tracking and Sparse Signal Reconstruction. MATLAB, Python, Bash. |
| Linux Shell | Linux C Shell. -A linux like shell developed purely in C with all command sets and piping features implemented and tested. System calls, C. |
| Shape Plotting | Shape Plotting Of The Objects. -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. C(embedded), Bash, Micro-controllers(Arduino UNO) , Circuit Designs. |
| WordCloud | Sentiment Analysis. -Sentiment analysis of latest tweets to create a heat-map using developer keys and NLP libraries. NLP, Python, JavaScript, HTML, CSS. |
| Bombberman | Bombberman Terminal Game. -UNIX terminal game based on original BOMBERMAN, purely developed in python without using any external libraries and having multiple difficulty levels. |
| Swarm Intelligence | Variation Resistant Sizing Of MOSFET Transistor Circuits. -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. Artificial Intelligence, C++, Python, HSPICE. |
| Obstacle Avoiding Bot | Obstacle Avoiding Bot Prototype. -A bot prototype which avoids obstacles in it's path and changes it according to the requirements. Arduino, C(embedded), Circuit Designs. |

Relevant Coursework

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| Computer Science & Mathematics | Data Structures and Algorithms, Computer System Architecture, Cache Management & Memory Hierarchy, IT Workshop(1 & 2), Time Complexity Analysis, Graph Theory, Linear Algebra, Probability and Random Processes, Discrete Maths, Group Theory, Vector Spaces. |
| Electronics | Signals and Systems, Digital Signal Processing, Embedded Hardware Designs, Digital Logic and Processors, Electronic Workshop(1 & 2), Linear Electronic Circuits. |
| Miscellaneous | Atom models, Schrodinger eqn, Lagrangian/Hamilton Mechanics, Random Walks, Diffusion, Heat, Engineering Systems, Humanities. |

Technical Skills

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| OS | Linux, macOS, Windows |
| Programming and Scripting | C, C(embedded), C++(STL), Java(Basic), Ruby(Basic), Go(Basic), Python, Bash, Assembly. |
| Web | HTML5, CSS3, Node.js, Bootstrap. |
| Miscellaneous | Git, Shell, OpenCV(Basic), L ^A T _E X, MATLAB, VLSI Designs |

Positions Of Responsibility

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| Apex Body Member, IIIT-Hyderabad | <i>March 2018 - Present</i> |
| Coordinator, Campus Life Committee, IIIT-Hyderabad | <i>May 2018 - June 2019</i> |
| Cultural Coordinator, VAYU House, IIIT-Hyderabad | <i>June 2018 - April 2019</i> |
| Overall Head, Marketing Team, Felicity IIIT-Hyderabad | <i>September 2018 - January 2019</i> |
| Student Mentor, IIIT Hyderabad | <i>June 2017 - March 2018</i> |
| Logistics Manager, VAYU House, IIIT-Hyderabad | <i>June 2017 - March 2018</i> |