

Archit Jain

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Education

- 2016 - **Bachelors of Technology - Electronics and Communication Engineering.**
Present International Institute Of Information Technology, Hyderabad
- 2016 **Senior Secondary, CBSE, St Joseph's Co-Ed School, Bhopal.**
Percentage: 91%
- 2014 **Secondary, CBSE, St. Paul High School, Indore.**
CGPA: 10

Work Experience

- May- Dec **CVEST, IIIT-H, UNDERGRADUATE RESEARCH STUDENT.**
2018 Worked with prof. Aftab Hussain to create a smart cricket bat for training which can calculate certain parameters related to batting and is equipped with IoT capabilities.
- May- Jul **Sid's Farm, TECH INTERN.**
2019 Worked on development of a program used to determine the route for delivery vehicles serving hundreds of locations at once which optimised the routes by 10% on an average.

Projects

- Machine Learning **Face Recognition Classifier.**
Classifier trained to recognise faces.
- OpenCV **Automated Document Detector-Cropper.**
CamScanner like webapp for automated document detection and cropping for an image with a plane background.
- Arduino **Object Picking Robotic Arm On An Obstacle Avoiding Bot.**
A fully automatic robot which can search around for objects and pick small objects with it's robotic arm and avoid larger ones automatically.
- Stock Forecasting **Stock Price Predictor.**
A program for predicting future stock prices made using ARIMA algorithm and other ML techniques by using existing dataset for stock prices.
- WordCloud, NLP **Sentiment Analysis on Twitter.**
Sentiment analysis of latest tweets to create a heat-map using developer keys and NLP libraries.
- IoT **Smart Cricket Bat.**
An IoT and micro-controller based device to be attached to cricket bat to felicitate cricketers by gathering relevant data.

HSPICE,	<u>Variation Resistant Sizing Of MOSFET Transistor Circuits.</u>
AI	Transistor sizing for digital circuits which uses Artificial Swarm Intelligence.
Python	<u>Python Scripting.</u>
	A program written in python to imitate random walk problems in vmd. Also, worked with protein models and wrote programs to rotate it along any given axis in vmd.
Game	<u>Bomberman Terminal Game.</u>
Development	UNIX terminal game based on original BOMBERMAN, purely developed in python without using any external libraries and having multiple difficulty levels.
FPGA	<u>Complex Gradient Method Implementation in FPGA.</u>
	Implemented conjugate gradient method in FPGA for solving sparse linear equations.
Matlab	<u>Epoch Extraction from Speech Signal.</u>
	Program made in Matlab using single frequency filtering to extract epochs from speech signal.

Achievements

NTSE	Cleared National Talent Search Exam(NTSE) in 2012.
JEE Main	Secured rank in top 1% among more than 1 million candidates in JEE Mains 2016.
JEE Advanced	Secured rank in top 3% among 0.2 million candidates in JEE Advanced 2016.

Relevant Coursework

Computer Science	Data Structures, Machine Learning, Computer programming, Computer system Organisation, IT Workshop, Computer Networks
Electronics	Embedded Hardware Design, Digital Signal Processing, Digital Logic and Processors, Intro to VLSI, Linear Electronic Circuits, Electronic Workshop, Principles of Semi-conductor devices, Signal and Systems, Digital VLSI
Mathematics	Discrete Mathematics, Linear Algebra, Graph Theory
Humanities	Intro to Human Studies, Intro to Psychology, Intro to Sanskrit
	* Courses in current semester

Technical Skills

OS	Linux, Windows, MacOS
Programming and Scripting	C, C++, Python, JavaScript, Shell, PHP
Web Technologies	Django, Flask, Node.js, Bootstrap.
Electronics	Arduino , FPGA , Verilog
Miscellaneous	Git, Latex, MATLAB, OpenGL, Micro-controllers