

Manzil Moharana

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EDUCATION

B.Tech Vellore Institute of Technology , Chennai, Tamil Nadu	August 2016 - April 2020 CGPA: 8.99
Grade XII KiiT International School , Bhubaneswar, Odisha	March 2014 - March 2016 Percentage: 91.8%
Grade X KiiT International School , Bhubaneswar, Odisha	March 2013 - March 2014 CGPA: 10

TECHNICAL SKILLS

Well versed in software development in python using different web frameworks and cloud APIs, Web Development and providing solutions to real world problem using IOT.

- Programming Language
Well competent with **C/C++**, **Python**
- Front End: HTML, CSS, JavaScript
- GPU Programming: CUDA
- Image Processing: MATLAB
- Assembly Language Programming: 8086 architecture, C#
- Database Technologies: MySQL, MongoDB, Firebase
- Development Board Programming: Arduino
- REST Framework designing: Bottle, NodeRED
- Cloud Technologies: IBM Bluemix, Google Cloud Platform
- Virtualization Technologies: OpenStack, VM Ware
- Continous Integration: Docker
- Statictical Analysis: R
- Data Vizualization: Python, Microsoft Power BIVisualization
- Machine Learning: NumPy, scikit, Pandas, Seaborn
- Version Control: GitHub, GitLab

OTHER SKILLS

- Good communication skills and leadership skills. Assertive and not easily swayed.
- Very particulart about time and punctuality.
- Languages: English, Odia, Hindi
- Video Editing, Visual Effects and Motion Graphics: Sony Vegas Pro, Adobe After Effects

INTERNSHIP

- **National Informatics Center, Bhubaneswar**
We created an Environment Monitoring System that helps a farmer or anyone for that purpose to monitor the environment of a *godown*. We used the ESP8266 developer board along with the Dallas temperature and humidity sensor to enable this. A cloud environment was emulated for the local data storage, analysis and visualization. This was enabled by using different web frameworks like Bottle and flask, while the cloud storage was optional i.e. done by using Firebase. And a combination of HTML, CSS and JavaScript was used to create a dashboard to monitor real-time data.
- **National Aluminium Corporation Limited, Bhubaneswar**
We were given the task to perform data analysis on the sales data of full financial year. The data provided was the actual sales data of the company. But due to security reasons, the data was masked. We used Microsoft's Power BI tool to visualize the data. And then the whole team brainstormed to come to an important phenomenon that would help the company.
- **Indian Statistical Institute, Chennai**
We were asked to predict the base auction prices of cricket player for the IPL game. The data was provided by the mentor. We used python and the main language to analyze and visualize the data. Pandas library was used to manage the data. And scikit learn library was used to implement the learning models. Seaborn and matplotlib were used for visualization.
- **Helpingcart**
Design the website for a startup that aimed to provide services to doors. I was asked to design the serverside functionalities. We created Login pages that used google and facebook OAuth services to authenticate. Implementation of OTP service for 2-step-verification. And a fully functioning service ordering portal.

ACTIVITIES AND APPEARANCES

- Microsoft Global Azure Bootcamp, 2016, Bhubaneswar
- Google developers Group Bhubaneswar Hackathon, 2015, Bhubaneswar
- Hands-on workshop Unity 3D engine, 2016, Chennai
- The ethical hacking workshop, 2016, Chennai
- IBM Call For Code Summit, 2018, Chennai

PROJECTS

- **Tic-tac-toe**, Winter 2018
A hardware project made using the 8051 microcontroller and C# language. The game is a 2-Player based system where the cross plays first and then the circle plays.
- **Life detecting BOT**, Winter 2018
A bot was designed using different sensors like infrared heat sensor, wireless camera and proximity sensor. The product was designed to go to places where humans can not go in case of a natural disaster.
- **Intelligent Parking System**, Fall 2018
A system that allows the user to find all the available parking locations and book it. This uses IBM's cloud service IBM Bluemix and NodeRED service for designing the web application.

- **FFT using CUDA Programming**, Fall 2018
A program that utilizes the power of GPU(NVIDIA GTX 850) to do the Fourier transformation calculations of an image.
- **LoadBalancer using OpenStack**, Fall 2018
Designing a load balancer in the OpenStack platform to route the traffic in an efficient way that can handle all the simultaneous traffic.
- **Kaggle competition; Predicting the time series forecasting of a given sales data**, Fall 2018
We performed the time series forecasting of data for 3 months by analysing last 3 years of data. There were different models used to find the most efficient and accurate one; LGBost.
- **Image Compression using DCT**, Fall 2017
An algorithm was developed by modifying the existing algorithms to increase the compression ratio. The language used was MATLAB and the basic approach was Direct Cosine Transformation.
- **Online Outing System**, Fall 2017
We created a solution for the pen and paper based outing system that is still being used in many places. The system provided everything in an online environment from applying for leave to being approved by the warden.