



# KABIIR KRISHNA

[kabiirk.github.io](https://kabiirk.github.io)

7<sup>th</sup> Semester VIT student, seeking opportunities in domains like (A). Automation with IoT, (B). Embedded Systems, (C). Strategies to integrate disruptive automation technologies to achieve higher degree of intelligence, integrity & interactivity during Data-acquisition-Processing-&-Analytics phases leading to transformative outcomes.

## Skills

Assembly  
C++  
Javascript  
Python  
Dart

## Tools

PowerBI  
AVRDude  
AVR Studio (32-bit)  
Flutter (Android)  
D3.js  
Docker  
Kubernetes

## Academics

### B.Tech.

2017 - Present

*Vellore Institute of Technology, Vellore*

Pursuing Bachelor of Technology in **Electronics & Communication Engineering** with specialization in Internet of Things (ECE spl. in IoT and Sensor).

### 10<sup>th</sup> & 12<sup>th</sup> CBSE

2015 - 2017

*DPS Dwarka, New Delhi*

9.4 GPA in 10<sup>th</sup> and 88% aggregate in 12<sup>th</sup>.

## Professional Experience

### Internships

#### 1. IBM-GBS Divison, Bangalore

Apr'20 - June'20

As IoT Solution data-architect for a "**Smart-Surveillance**" Project that IBM was implementing for a London HQ'ed Security Services MNC. My role was to (A). Use ETL process to design a Python-based scalable data-transport service for real-time video-feeds of human faces, objects & events like accidents captured at junctions, and fed into the IBM Visual Insights (IVI) Analytics Platform, that relayed all meta-data & video output streams to populate client's front-end Application, Object-Storage and MongoDB, (B). Create an intelligent Services Solution & fault-tolerant architecture using a decentralized SOA and Secure Data-streaming, (C). Come-up with a Solution that included creation of raw datasets, training-&-testing of the surveillance model, and (D). Leverage technologies like Kafka, Kubernetes and Docker etc.

#### 2. Deloitte-IMA Division, Gurugram

May'19 - July'19

As an Analyst, my Project "**Buyer Sentiment Analysis**" involved (A).NLP-based analytics as applied to the FMCG Industry,(B). PowerBI as a Data Visualization tool. The clientwas a UK-HQ'ed global FMCG leader whose best-selling soaps-related sales data was extracted from e-commerce sites like Amazon, Flipkart etc.The Project's outcome was to highlight inherent business opportunities for that category of soaps, supported by the results of Analytics applied to the base data.

## **Microsoft Student Partner Program**

*Aug'19 - Present*

### *VIT's Knowledge Community*

As a part of the MSP community, I evangelize Microsoft Azure Cloud Platform by conducting workshops for peers & juniors.

## **Head of University Affairs**

*July'17 - July'20*

### *Computer Society of India-VIT Student Chapter*

Led the creative content design team as a Board member of the Chapter, I mentor my juniors in creative content design and have been organizing one of South India's biggest annual Tech Conference **DEVSPACE** for the past 2 years.

## **Projects**

### **IoTomize**

The Project created an end-to-end IoT-based Home Automation Solution. We used RFID-validation along with data originating from sensors like DHT-11 to manage motor-controlled action. Project provided a unified platform to measure, analyze and actuate physical action. Multiple components like interfaced sensors worked in tandem with data residing on Azure Cloud and a Dashboard was created to pull & visualize the same as graphs. It coupled automation in Data-collection along with Analytics that can also be exploited to offer greater control in reducing electricity consumption based on human presence in any corner of home via real-time monitoring and switching-off of electrical devices viz. lights, fans, AC, TVs, etc.

### **Smart Parking System**

Objective of this Project was to find location of an empty Parking-slot using a Mobile App. Designed around embedded systems, it involved interface between Micro-controllers viz. ESP8266 (NodeMCU) & Atmega16A and allowed for serial communication between them.

### **Sentiment & Emotion Analysis with Data Visualization**

This was emulation over the Deloitte Project done in summer of 2019. It focused on raw data-sets related to public opinion as expressed on e-commerce platforms w.r.t. mobile phones as the product in question. Data extraction involved it's cleaning too so as to be properly analyzed & presented. It was extremely insightful as it demonstrated that there is much more to Data Science than just Machine Learning, and Data Pipeline plays a significant part in data cleaning as a lot of the world's data is 'raw' and needs to be processed in order to generate workable insights.

## Smart Health Monitoring System

Goal: Allow real-time measurement of patient's body vitals e.g. heart pulse-rate, temperature, orientation etc. and set-out an alarm when these parameters violate a pre-defined range. Sensors Used: DHT-11 (temperature & humidity), MPU-6050 (3-dimensional, 6-axis orientation) and Pulse-Sensor (pulse-rate).

Application Suite: Blynk (freeware)

Project involved interfacing sensors with NodeMCU micro-controller, signal extraction and transporting body's vital health parameters/data to the Blynk app in order to detect health emergencies in real-time w.r.t. heat-strokes, arrhythmia, high/low BP and body-balance.

## Thoughts & Ideas

I aim to use disruptive technologies like IoT Neural Networks, Machine Vision, NLP and Deep-Learning coupled with my knowledge of electronics and embedded systems to come up with intelligent IoT-based Solutions for the future.



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