# . AHUL $\operatorname{BarnWAL}$ Dhanbad, Jharkhand ← +91-9123125993 rbarnwal4056@gmail.com rahul-barnwal-70546998

#### **EDUCATION**

## Indian Institute of Information Technology

2020 - 2024

B. Tech.in Electronics and Communication Engineering - CGPA - 9.14

Kottayam, India

The Coding School

2020 - 2021

Introduction to Quantum Computing Course

Online

#### TECHNICAL SKILLS

Languages: Python, C++, JavaScript, Verilog

Technologies/Frameworks/Database/Tools: ReactJS, SQL, MongoDB, Numpy, Matplotlib, Seaborn, Pandas, Scikit-learn, Tensorflow, Lightkurve, Ubuntu, GitHub, Github Desktop, MATLAB/Octave

#### INTERNSHIP

• Research Intern:

Worked as research intern under the guidance of Dr. Gopal Bhatta Z in the field of High Energy Astrophysics particularly on "Blazar Variability".

- Intern at KrishTec 🗷: Majorly involved in developing and testing ML codes for ADAS application using Jetson Nano.
- Intern at Reflections 🗹 : Worked on smart (IoT and Deep Learning based) ECG device
- Intern at Raman Research Institute 🗹 : Worked on the software development of interface serial protocol for the Integrated Prototype Board

## **PROJECTS**

Preferential Voting System: React based website backed by blockchain technology for creating and conducting polls

Design and development of co-processor for RISC-V processor for Fast Fourier Transform (ongoing)

Vanali: IoT-based real-time Car Diagnostic System using Raspberry Pi Board

ADAS system using "DetectNet" Neural Network and Jetson Nano Board

Bal - An IoT based truck overload detector with blockchain based database."

#### ACHIEVEMENTS

## Winner of Kerala State Council for Science, Technology and Environment Techfest 🗹

2021 Kerala

- Made an IoT device that can measure heart rate, temperature and spO2 level and send data over the cloud
- Bronze Prize Winner Merit Certificate and cash prize of 10000 rupees.

## Secured 3rd position in Automotive Challenge conducted by BloomBloom

2021-2022

India

- Made a prototype IoT device for automobile's diagnosis
- Offered by Reflections Automotive to incubate the prototype developed and 4 months paid internship with stipend 20000 rupees per month

## Secured 2nd position in Machine Learning Hackathon by Reflections Info Systems

2022-2022 India

- Participated with my team and solved a machine learning problem statement given by organizers
- Received 50000 as prize money

### **PUBLICATIONS**

- (1st author) Paper titled "Advanced Driver Assistance System for Autonomous Vehicles Using Deep Neural Network" accepted and presented in R10-HTC IEEE
- · Paper titled "Exploring Short-Term Optical Variability of Blazars Using TESS" is accepted in MNRAS, Oxford University 2 2022

#### CERTIFICATIONS

- Verilog HDL: VLSI Hardware Design Comprehensive Masterclass Udemy Qubit by Qubit sponsored by IBM (Getting Started with Python) - Coursera
  - Data driven Astronomy Coursera
- Introduction to Quantum Computing -
  - Programming for Everybody
- The Arduino Platform and C Programming Coursera
- Neural

Networks and Deep Learning - Coursera