# ATHARVA MAHESHWARI DHARWA

Course : **B.E. (Hons.)**, Electronics and Communication Engineering, 2021
Email : atharvadharwa@gmail.com
Mobile : 8720014333
CGPA : 8.06

| Subjects / Electives | C programming, Embedded System Design, Computer Architecture, Microprocessors, Digital Signal Processing, Digital Design, Probablity and statistics, Information Theory and Coding |
|---|---|
| Technical Proficiency | C++ Language, C Programming, Python3, HTML + CSS, PHP, Machine Learning, Embedded Systems, Web Development, Raspberry Pi, Analytical Skills |

## SUMMER INTERNSHIP / WORK EXPERIENCE

**Research Intern, CEERI Pilani**                                                     Jul 2020 - Dec 2020

Assisted a senior scientist in detecting & classifying steel defects in manufacturing using **Machine Learning & Deep Learning** models.
- Used LBP, LTP, CLBP, AECLBP for feature extraction with various classifiers to achieve the validation accuracy of **98.78%**
- Used CNN with Class Activation Map (CAM) to build an improved model with a validation accuracy of **98.89%**

**CEO, SiteX DigiTech**                                                              Nov 2019 - Nov 2020

- Lead the sales team and acquired **10+ clients**. Managed over **50+ people** for various client projects
- Worked with **PHP, MySQL, Python, HTML, CSS** for formal IT projects and home projects to automate social media in order to increase the online presence of the company
- Built and deployed several websites for companies and start-ups

**IT Intern, Pyrotech Electronics Pvt. Ltd**                                          May 2019 - Jul 2019

Designed a medicine vending machine using Python to simulate the model

## PROJECTS

**Detection of Sleep Apnea using Machine Learning on Heart Rate and Pulse Oximetry Markers - IT**        Jan 2021 - May 2021

*Research Paper in process in journal 'Computer Methods and Programs in Biomedicine' with manuscript no. 'CMPBUP-D-21-00538'
Objectives of the study are:
(i) analyse the performance of machine learning classifiers on a dataset with heart rate and pulse oximetry markers
(ii) assess the usefulness of trained machine learning models to detect apneic events on new data, using cross-dataset validation
(iii) assess the significance of age as a feature, on the performance of machine learning classifiers.

**G1 Sanjeevni App - IT**                                                           Apr 2021 - May 2021

Developed a Flutter App for COVID relief and launched it in playstore
- The app aimed to provide various verified COVID leads for resources such as oxygen, ICU beds, plasma etc.
- The app scrapped data from various online resources and presented it in a user friendly manner

**Digital Vending Machine (DiVe) - IT, Electronics and Mechanical**                   Apr 2018 - Mar 2020

- Spearheaded a team of 5 to win multiple competitions like Quark open showcase event and CTE pitching contests
- Secured numerous fundings from the Institute, Sandbox Lab, EEE department, CTE worth **Rs. 1 lakh+**
- The project aimed to resolve the existing mechanical and technical problems associated with the current vending machines in the market
- Created a foolproof dispensing mechanism, digitized all the payments and reduced the cost of a vending machine by up to 90%
- Technology used: Python (**Selenium** browser automation, **GUI** creation), Solidworks (model designing), Raspberry Pi

## AWARDS AND RECOGNITIONS

**Received EEE funding for project "Accident detection with NavIC" | EEE department, BITS Pilani**        Apr 2019

- Got awarded with the prestigious EEE funding for 3 consecutive times worth Rs. 60,000

## POSITION OF RESPONSIBILITY

**Coordinator - Peer Mentorship Program**                                            Apr 2019 - Jul 2020

- Interviewed and shortlisted 100+ mentors who aided the incoming batch of juniors in their academic life at BITS
- Organized meetings throughout the year involving the mentors and mentees to ensure satisfaction
- Interviewed 20+ applicants through a rigorous interview process to lead the PMP program for the upcoming academic year

## ACADEMIC DETAILS

| COURSE | INSTITUTE/COLLEGE | BOARD/UNIVERSITY | SCORE | YEAR |
|---|---|---|---|---|
| CLASS XII | Indore Public School | CBSE | 90 % | 2017 |
| CLASS X | Xi'an International School | IB | 99.08 % | 2015 |

## LANGUAGES KNOWN

Chinese, English, Hindi