Abhay Chirania

Self-motivated and hardworking individual with a knack to learn new technologies.

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SKILLS

Python | Teaching | Computer Vision | Embedded C | Microcontroller | Electronics | IoT | Assembly language | PCB Designing | Deep Learning | Game Development | Communication

LANGUAGES

English
Bilingual proficiency

Hindi
Native proficiency

Bengali
Limited Working Proficiency

Nepali
Limited Working Proficiency

German
Elementary Proficiency

EDUCATION

B.Tech - Electronics & Communication Engineering 2018-2022
SRM Institute of Science and Technology
9.95 CGPA

Class 12 2017-2018
M.P Birla Foundation Higher Secondary School
92%

Class 10 2015-2016
M.P Birla Foundation Higher Secondary School
94%

WORK EXPERIENCE

Head Python Educator - *iCodeiCreate* 2020-2021
Online Tutoring startup with the vision of making coding fun.

- Responsible for designing curriculum and teaching Python, Image processing and Computer vision.
- Conducted several workshops in affiliation with various schools.

POSITION OF RESPONSIBILITY

Electronics head - Etros Solareon Racing 2020-2021
Oficial Solar car team of SRM Institute of Science & technology

As a member of the electronics and coding domain of the team, i am responsible for designing and implementing electrical and electronics systems of the solar vehicle.

Secretary - LMNTRIX 2017-2018
Computer Club of M.P. Birla F.H.S School

As a secretary of the computer club of my school i was responsible for organising various inter-school as well as intra-school competitions and workshops. Along with my team i was able to successfully organise and co-ordinate a two day inter-school technical fest.

PUBLICATIONS

Research Paper 2021

A tiny CNN architecture for medical face mask detection for resource constrained endpoints

International Conference of Electrical and Electronics Engineering (Springer LNEE 2021)

Co-Authors: Aditya Jyoti Paul, Puranjay Mohan

https://arxiv.org/abs/2011.14858

ACHIEVEMENTS

- Achieved Rank 1 in ECE Department (2019-20)
- Best Innovation Award in national solar vehicle competition (SUVC-2019)
- Best project award received from physics department of SRM (2019)
- Runners up in inter-state darts championship organised by Bengal Rowing Club (2018)

INTERESTS

Verilog | FPGA | ARM | Gaming | Electric Vehicles

PROJECTS

6502 Emulator and Assembler (2021)

- Developed 6502 Emulator and assembler along with GUI from scratch in python.

Sketch2Web - AI to Convert handrawn sketch to html templates(2021)

- Using Machine learning, built a system thant converts drawn html template designs to actual html code.
- Useful for webdesigners to quickly prototype and visualize their design.

Remote acess tool with wireless file transfer system (2021)

- Built a reverse shell with multi-client support in python using sockets which allows execution of commands on multiple computer on same network.
- Allows for wireless transfer of files between client and server.

Augmented Reality Rubik's Cube solver (2021)

- Using Python Opencv module , built a system which can solve any 3x3 Rubik's cube live on webcam

Controlling solar car using automotive relays and RF communication (2020)

- Successfully designed and built the system to control basic functionalities of the car.
- Designed PCBs for the whole system along with the switching mechanism between manual and automatic acceleration.

Health monitoring system for solar car (2019-20)

- Worked on a system to monitor RPM, temperature, battery voltage and other parameters of car and display on custom built android application used as dashboard.
- RPM counter built on Atmega32P using interrupts.
- Data pushed to AWS Cloud server as well to allow pit crew to monitor the car.

Android based car dashboard (2020)

- The application was designed to act as dashboard of the car and communicated with the health monitoring system wirelessly via bluetooth.
- One of the most interesting feature of the app was Lap counter which was accompolished using