# Viraj Bhartiya

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#### **EDUCATION**

# K.J. Somaiya College of Engineering

**B. Tech Computer Engineering** 

(GPA: 8.86/10) Sep 2027

Vidyadham Jr. College

Secondary Education

**July 2021 - June 2023** 

Cambridge School ICSE

Primary Education

July 2011 - June 2021

#### **EXPERIENCE**

#### **KJSCE CodeCell**

## Tech Team

November 2023 – Current

- Developed a responsive website for Debating Society and Voices of Somaiya Vidyavihar University
- Conducted a workshop on competitive programming where participants were taught basics of C++ and algorithms used in competitive programming

#### PROJECT EXPERIENCE

#### **Spam Email Detection**

#### Natural Language Processing

**July 2023** 

- Developed effective solutions for detecting spam emails by leveraging machine learning techniques, including Natural Language Processing and the Multinomial Naive Bayes algorithm.
- Ensured the security and efficiency of email communication through email spam detection.

## **Commute Buddy**

# Carpooling app built using flutter

January 2024

• Built a carpooling service app using flutter as the frontend and firebase for the backend. The Cost of commute was calculated based on delta of the distance needed to travel and other factors such as average of the car, number of passengers and the fuel cost.

#### Riverto

## Music streaming and download app

February 2024

- Used flutter to build a cutting-edge music streaming and download application
- Involved reverse engineering to connect with the <u>Saavan.com</u> API, which granted users access to an extensive music catalogue consisting of over 1 million songs.

#### Catalyst

## Home automation via Reverse Engineering

December 2023

• Conducted reverse engineering of the SSDP and UDP protocols utilized by Belkin's WeMo plug, enabling the emulation of said protocols through a Raspberry Pi. Implemented this emulation to establish seamless communication between Amazon Alexa and Apple's HomeKit platforms, facilitating centralized control over room electrical switches.

## **Stock Trader Bot**

## Algorithmic Trading Strategies

August 2023

• Developed a trading bot that sends buy/sell signals to Zerodha API based on predictions made use RSI, MACD, EMA, SMA indicator calculations done using historic data. The Bot could generate a profit of 8.73% within 12 trading sessions

#### **Maple**

# Free E-book provider using

May 2020

- Built the application using Flutter and Firebase technologies
- Facilitated access to an extensive collection of best-selling eBooks, all obtained at no expense through the Feedbooks API
- Engineered functionalities for downloading, bookmarking, and sharing books among users

#### **Face Recognition Attendance System**

# **OpenCV** Image Processing

February 2021

- Face recognition system which can be used at an organisation of any level for logging the attendance of their employees at a glance
- Optimised to run on a RaspberryPi

#### Medco

## Medicine reminder app in Flutter

January 2020

- Designed and developed a medication reminder app, allowing users to set medication schedules and receive timely notifications to prevent missed doses
- Utilized Flutter and integrated SQL for efficient data management

#### Alien

# Virtual Screen Sharing over LAN via WebRTC

May 2023

- Alien, powered by cutting-edge technologies such as WebRTC, ElectronJS, and ReactJS, innovatively transformed web browser-equipped devices into secondary computer screens
- Offered flexible screen mirroring and multitasking capabilities, seamlessly integrated with Virtual Display Adapter, and functioned as a tablet or smartphone teleprompter through the unique Flip Screen Mode, elevating screen utility and productivity.

#### Lucid

# Text to image generation | OPENAI's CLIP Model

October 2022

- Developed text-to-image generation utilities using OpenAI's CLIP model, which involved generating images from textual descriptions or existing images
- It created videos from textual inputs and produced music videos from song lyrics as part of the project SKILLS & INTERESTS

**Technical:** Flutter, React Native, ReactJS, Python, TypeScript AppScript, Firebase, MongoDB, NodeJS, AppScript, Tailwindess

Languages: English, Hindi, Marathi

Interests: Android Development, iOS Development, WearOS development, Web Development

#### CERTIFICATIONS

## Ethical Hacking and Cybersecurity, IIT Bombay

September 2023

• OSINT (Open Source Intelligence), Network Scanning, Enumeration Techniques, SQL Injection, Cross-Site Scripting, Web Application Security