

Viraj Bhartiya

Mumbai, MH | [Website](#) | [GitHub](#) | [LinkedIn](#) | [+91 8485837871](#) | [Email](#)

EDUCATION

K.J. Somaiya College of Engineering
B.Tech Computer Engineering

Sept 2027

Vidyadham Jr. College
Secondary Education

July 2021 - June 2023

EXPERIENCE

KJSCE CodeCell

Tech Team

- Developed a responsive website for Debating Society, Voices of Somaiya Vidyavihar University and a futuristic website for Tech Fest - [KJSCE DevOpia](#)
- Conducted a workshop on competitive programming where participants we taught basics of C++ and algorithms used in competitive programming

Inter IIT Competitive Programming Conclave

Web Dev Lead

- Designed and developed the official website for the Inter IIT Competitive Programming Conclave, India's largest competitive programming camp according to statistics involving 30+ colleges including IITs, NITs, and BITS.
- Achieved over 70,000 page views and 15,000+ unique visitors during the event.

MGPEL

Software Development Lead

- Designed and implemented the backend and frontend infrastructure for the company's website, utilizing React.js and Tailwind CSS with a Node.js backend, alongside AWS RDS for PostgreSQL and S3 for storage.
- Facilitated creator and brand onboarding, providing analytics, insights, and personalized stores.

PROJECT EXPERIENCE

Spam Email Detection

Natural Language Processing

- 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..

Catalyst

Home automation via Reverse Engineering

- 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.

[Alien](#)

Virtual Screen Sharing over LAN via WebRTC

- 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

- 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

[Riverto](#)

Music streaming and download app

- Used flutter to build a cutting-edge music streaming and download application
- Involved reverse engineering to connect with the [Saavan.com](#) API, which granted users access to an extensive music catalogue.

[Flappy Bird AI](#)

Self-Playing Flappy Bird via Reinforcement Learning

- Designed an autonomous Flappy Bird player through Reinforcement Learning, allowing it to learn the game on its own
- Developed and implemented the project using the P5.js framework within the Processing environment

[Face Recognition Attendance System](#)

OpenCV Image Processing

- 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

SKILLS & INTERESTS

Technical: Flutter, React Native, ReactJS, Python, AppScript, Firebase, MongoDB, NodeJS, AppScript, PostgreSQL, TypeScript, AWS,

Languages: English, Hindi, Marathi

Interests: Web Development, Android, iOS, WearOS

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