Vaibhay Dhumale

EDUCATION

Gati Shakti Vishwavidyalaya, Vadodara

CGPA: 7.79 BTech in Electronics & Communication Engineering, specialisation in Railway Engineering 2021- May 2025

Matrix Academy, CBSE School

Percentage: 93.4% Class XII, CBSE May 2021

John XXIII CBSE School Percentage: 90.6%

Class X, CBSE May 2019

PROFESSIONAL EXPERIENCE

Bangalore Metro Rail Cooperation Limited (BMRC Ltd.)

Bangalore, KA May - June 2024

Summer Intern, Signalling and Telecommunication Department

Engaged and studied metro operations and signaling, focusing on testing of CBTC systems for upcoming projects.

- Contributed to the design review process of **Platform Screen Doors (PSD)**, gaining a comprehensive understanding of their integration and functionality.
- Visited a Metro Depot to learn about maintenance and control procedures.

Research Designs & Standards Organisation (RDSO)

Lucknow, UP

May - June 2023

Summer Intern, PS & EMU Directorate

- Gained insights into RDSO's collaboration with Indian Railways in maintaining standards for railway systems.
- Participated in in-depth learning about the Train Control And Management Systems in the Power Supply & Electric Multiple Units directorate.
- Interacted with Executive Directors of 13 different directorates, understanding their roles in the standards development.

Mumbai Rail Vikas Corporation Limited (MRVC Ltd.)

Mumbai, MH

Summer Intern, General operations

July - August 2022

- Attended training sessions and field visits about railway construction and project management processes.
- Developed a in-depth project titled 'Monitoring Infrastructure Health with the Optical Fibers'
- Understood MRVC's crucial role in ensuring the efficiency and safety of Mumbai's local railway.

Freelancing roles Remote

Freelancer, Various opportunities.

2021-present

- Data Entry Operator | Bintix Ltd.: Effectively used spreadsheets for data management and analysis.
- Video Editor & Graphics Designer | Freelancer.com: Adobe Premiere, DaVinci, Illustrator.
- Assistant Web Developer | Freelancer.com: Developed real-world applications using the MERN Stack.

PROJECTS

Automated Wagon Fault Detection - [Link]

A system for predictive maintenance

- Developed a robust computer vision and machine learning model to detect wagon faults.
- Achieved a 93% accuracy in training a YOLO model on 1500+ labelled frames.
- Technologies: Computer Vision, Machine Learning, YOLO, LabelMe.

MinNotes - [Link]

A feature packed note-taking app

- Integrated rich text editing, attaching image & voice notes and hidden notes functionality for enhanced user privacy.
- Utilized Isar database for efficient note storage and quick access, ensuring smooth performance.
- Technologies: Flutter, Isar Database (NoSQL), Dart

More Projects on my Portfolio site - [Link]

SKILLS

Languages: English (Fluent), Hindi (Fluent), Marathi (Intermediate)

Programming Skills: Verilog, MATLAB, Python, Dart, MERN Stack (MongoDB, Express.js, React.js, Node.js), SQL

Libraries/Frameworks: Flutter, Tailwind-CSS, TensorFlow

Soft Skills: Analytical Thinking, Problem Solving, Project Management, Leadership, Proactive, Adaptive

ADDITIONAL INFORMATION

Certifications: MATLAB OnRamp (Mathworks), Responsive Web Design (freeCodeCamp), Deep Learning (NVIDIA), Railway Signalling Engineer Trainee (IRISET, Secunderabad)

Volunteer Experience: Volunteer Teacher at Happy Faces, Vadodara.

Interests: Cycling, Photography, Mindfulness, Reading, Coding, Volleyball

Notable Experiences:

- Founded a pre-seed startup, ReDeFyn, focused on sustainable fashion; pitched at Hult Prize and E-Summit (IITM).
- Student Representative of Media and PR Committee.
- Organised TechFest as a member of the Event Management Club.