

Parth Mital

Vadodara, Gujarat, India — parth.mital.2004@gmail.com — GitHub — LinkedIn — Portfolio

Education

Vellore Institute of Technology (VIT)
B.Tech in Computer Science and Engineering
CGPA: 8.66 / 10

Vellore, India
2023 – 2027

Technical Skills

Programming Languages: Python, Java, C, C++

Frontend Development: HTML5, CSS3, Tailwind CSS, JavaScript, TypeScript, React.js, Next.js

Tools & Platforms: Git, GitHub, VS Code, Version Control, IDE

Projects

PhytoScan — Multimodal Plant Health Diagnostic System

Jul 2025 – Aug 2025

GitHub: github.com/Mo-Kash/PhytoScan

- Developed multimodal plant health diagnostic system using YOLOv8s-seg (disease segmentation), YOLOv8s (insect detection), and TabNet (text-based symptom prediction); created and annotated 2 datasets (50 images each) in CVAT.
- Implemented fusion pipeline combining visual and textual model outputs for disease and insect prediction, achieving YOLOv8s-seg mAP@0.5 = 0.709, YOLOv8s mAP@0.5 = 0.861, TabNet accuracy 55.5% (disease), 53% (insect); delivered modular end-to-end system.

StudyApp – AI-Powered Study Assistant (Work in Progress)

Jul 2025 – Present

GitHub: github.com/parthmital/StudyApp

- Developed full-stack AI study assistant using Next.js (React, TypeScript, Tailwind CSS) frontend and FastAPI (Python) backend; implemented GPU-accelerated OCR (EasyOCR), chunked PDF parsing, LaTeX math rendering, and diagram-to-text semantic extraction.
- Integrated NLP (KeyBERT), automated video curation (yt-dlp), session-based state management, WebSocket streaming, fuzzy search, and persistent user history for real-time, cross-platform educational content delivery.

Portfolio Website – Personal Website

Jun 2025 – Jul 2025

Live / GitHub: [Live](#) — [GitHub](#)

- Developed responsive single-page web application using Preact and Vite; implemented semantic HTML5, CSS3 variables, responsive design, cross-browser compatibility, accessibility, and mobile-first performance.
- Engineered modular JSON-driven content management, optimized performance via lazy loading, image compression, build-time asset optimization, and automated CI/CD pipeline with GitHub Actions for seamless deployment.

Spotify-Inspired React Music Player

Jan 2025 – Apr 2025

Live / GitHub: [Live](#) — [GitHub](#)

- Developed responsive music player using React 19.1.0, Vite 6.3.5, HTML5 Audio API, and modern CSS; implemented full playback controls, dynamic theming, gradient backgrounds, smooth transitions, and state-driven management.
- Built component-based architecture with React Hooks, modular styling, optimized state updates, mobile-first layouts, touch-friendly controls, accessibility features, and deployed via GitHub Pages.

Research Projects

IPL Player Performance Forecasting

Mar 2025 – Apr 2025

GitHub: github.com/parthmital/IPL_Player_Performance_Predictor

- Built ML pipeline to forecast IPL player performance (2008–2024 ball-by-ball data; 565 batsmen, 441 bowlers) and engineered features for batsmen and bowlers (runs, balls faced, fours, sixes, strike rate, average, boundary %, consistency score, weighted recent form, wickets, balls bowled, runs conceded, economy).
- Trained Random Forest regression models in scikit-learn (100 estimators, max depth 12, StandardScaler) achieving $R^2 = 0.82$; automated multi-match predictions with confidence intervals, CSV export, and actionable statistical insights.

Experience

Web Development Intern — Hiraeth Tech, Vadodara

Jun 2025 – Jul 2025

- Designed and developed 3 fully responsive WordPress websites using Elementor and custom CSS; ensured cross-browser compatibility, mobile optimization, and accessibility compliance.
- Implemented interactive website features via WordPress plugins including galleries, forms, sliders, and dynamic content modules; applied SEO-friendly structure and responsive layouts.
- Enhanced website performance by optimizing 40+ product images, reducing load times and improving visual fidelity.
- Collaborated with stakeholders to translate requirements into technical solutions and ensured timely project delivery.