PRATYUSH TRIPATHI

B.Tech 2nd Year Student(CSE)

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Profile

I am a passionate and result driven B.Tech second-year student with a strong grasp of programming and problem-solving skills. I enjoy applying my skills to real-world challenges and have actively contributed to projects in competitive environments. Through collaboration on various frameworks, I have gained hands-on experience and was recognized as a part of top-performing teams in hackathons. I am always eager to learn, innovate, and make a meaningful impact through technology.

EDUCATION

Study Program, *SRM IST KTR* 06/2023 – 06/2027

- B.Tech CSE Chennai, India

SKILLS

Machine Learning

Data Structures and Algorithm

Full Stack

CSS

Express

MongoDB

Java

Firebase

Devops — Proficient

Docker

AWS basics

MERN

JS

Node

React

Python

C & C++

Linux

Vagrant

CentosOS

LANGUAGES

ENGLISH
Full Professional Proficiency

HINDI
Full Professional Proficiency

KOREAN
Limited Working Proficiency

INTERESTS

- Acting
- Music
- Script Writing
- Sports

PROJECTS & WORK EXPERIENCE

PLAYBOX, *Project Lead at CSI SRM HOUSE OF CODERS* 08/2024 – 09/2024
A subscription based gaming platform.
Achievements/Tasks
- Worked on Database, establishing connections on different frameworks for Frontend and Backend technologies.
- Got selected for last round review and submissions among 100 teams (Top 15)
- Tech stack: MongoDB, Express, Node JS, React, Firebase, Vercel, Git and GitHub
- Got an opportunity to interact with market specialists and better understanding about consumer experience and demands

TRUEPASS, *TechExcelerate BITS HYDERABAD MARCH EDITION 2025* 03/2025
Decentralized Ticketing System
Achievements/Tasks
- WON hackathon in Web3.0 domain
- Built a secure ticketing platform on the Ethereum blockchain using Solidity for smart contracts, React for the frontend (developed by me), and MongoDB for database management.

Project Lead, *PMKVY SRM* 03/2025 – Present
Achievements/Tasks
- Created a Full Stack application within 5 days Bootcamp challange
- Tech Stack: React, ExpressJS, NodeJS, XAMPP, PHP

CERTIFICATES

- Python Bootcamp: Zero to Hero by UDEMY
- AR/VR Consultancy(PMKVY)
- Figma: GDSC SRM
- C++: From beginner to advanced
- DevOps Beginners to Advanced with Projects(Udemy)
- NPTEL Introduction to Java Programming
- DBMS Course - Master the Fundamentals and Advanced(Scalar)

PERSONAL PROJECTS

Truepass(BITS HYD) 03/2025 – 04/2025
- First position in Web3.0 domain(Team Roots)
- BITS HYD Hackathon winner

| React | Solidity | MongoDB
Developed a secure, blockchain-based ticketing system using **Ethereum smart contracts** (Solidity) and a **React.js frontend**. Integrated **MongoDB** for user and event metadata storage. Ensured tamper-proof ticket validation and ownership via decentralized architecture, enabling transparent and trustless event access.

Playbox 08/2024 – 09/2024
- Got selected in TOP 10 teams for CSI SRM HOUSE OF CODERS hackathon
- Tech stack: MongoDB, Express, Node JS, React, Firebase, Vercel, Git and GitHub

Developed a full-stack gaming portal where users can subscribe to access a curated library of games. Built a responsive **React** frontend and **Node.js**/Express backend, integrated **MongoDB** for user, subscription, and game metadata. Implemented secure authentication, subscription management, and monetization logic. Delivered a seamless browsing and gaming experience with robust payment handling and user profile features.

Credit Card Fraud Detection, *Machine Learning Pipeline for Anomaly Detection*

Engineered a data-driven ML solution to identify fraudulent credit card transactions using a publicly available Kaggle dataset. Developed a full analysis workflow in Jupyter Notebook, including:

- **End-to-end data pipeline**: Preprocessed transaction features, handled severe class imbalance through scaling and sampling techniques.
- **Model evaluation & comparison**: Trained and benchmarked logistic regression, SVM, and random forest models—achieved the best performance with logistic regression on test set.
- **Insightful analysis**: Evaluated models using accuracy and advanced metrics (precision, recall, F1-score, AUC) tailored for imbalanced datasets.
- **Interpretability & presentation**: Visualized data distributions, model behavior, and performance metrics to highlight fraud detection efficacy.
- **Practical relevance**: Demonstrated how machine learning can enhance financial system integrity by flagging fraudulent transactions with high precision.

Uber-Clone
Built a scalable, end-to-end web application that enables users to browse, stream, upload, and manage videos—think "Uber meets video streaming." Developed a responsive React frontend paired with a robust Node.js/Express backend and MongoDB storage. Implemented secure user authentication, efficient media streaming, and token-based access control. Deployed via CI/CD pipelines and containerization for seamless production roll-out.
Key highlights:

- **End-to-end architecture**: React UI ↔ RESTful APIs ↔ MongoDB; optimized for performance and maintainability.
- **Media processing & streaming**: handled video uploads, storage, delivery, and playback with data-efficient streaming support.
- **Security & access control**: integrated JWT authentication, token blacklist with TTL auto-deletion, and secure user flows.
- **DevOps foundation**: setup CI/CD workflows, Docker environments, and orchestrated deployment processes.

Android Weather App, *Real-time weather forecasting Android application*
Crafted a fully functional Android app that delivers current weather updates, forecasts, and alerts with a sleek and intuitive interface. Built using Kotlin and the MVVM architecture, the app integrates RESTful APIs to fetch and display real-time weather data based on user location.
Key highlights:

- **Clean & reactive UI/UX**: Implemented a dark/light themed interface with smooth animations and clear readability.
- **MVVM + LiveData**: Ensured separation of concerns with ViewModels managing state and LiveData updating the UI reactively.
- **Networking & data handling**: Incorporated Retrofit and coroutines for efficient API calls, alongside Room for caching forecast data offline.
- **Location-aware experience**: Utilized fused location provider to auto-detect user location, with graceful permission and error handling.
- **Enhanced user interactions**: Features included pull-to-refresh, dynamic icons, temperature units toggle, and weather alerts.
- **Quality assurance & CI/CD**: Wrote unit tests for ViewModel and repository layers, and set up GitHub Actions for automated build validation.