Vivek Kumar Gupta

Bachelor of Technology
Computer Science and Engineering
Government Engineering College
Palamu, Daltonganj

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Technical Skills

- **Programming Languages:** Java, JavaScript (ES6+), Python, C, C++
- **Backend Development:** Node.js, Express.js, RESTful API Development, Authentication & Authorization (JWT), MVC Architecture
- **Frontend Technologies:** React.js, HTML5, CSS3
- **Databases:** MongoDB, Mongoose, CRUD Operations, Schema Design
- **Machine Learning:** Logistic Regression, Random Forest, TF-IDF Vectorization, Cosine Similarity
- **Tools & Platforms:** Git, GitHub, Postman, Docker, Render (Deployment)
- **Core Concepts:** Data Structures & Algorithms, Object-Oriented Programming (OOP), Operating System Basics, REST APIs

Work Experience

- **YBI Foundation** *(Python & Machine Learning Intern)* — **June 2024**
  Movie Recommendation System
  - Designed and developed a **content-based movie recommendation system** using **Python** to deliver personalized movie suggestions.
  - Implemented **TF-IDF vectorization** and **cosine similarity** to calculate similarity between movies.
  - Worked with the **MovieLens dataset**, performing data cleaning and text preprocessing to improve recommendation accuracy.

- **YBI Foundation** *(Python & Machine Learning Intern)* — **June – July 2025**
  Heart Disease Prediction System
  - Developed a **machine learning-based prediction system** to assess heart disease risk using clinical patient data.
  - Implemented and compared **Logistic Regression** and **Random Forest** models to improve prediction accuracy.
  - Performed **data preprocessing, feature scaling, and model evaluation** using accuracy score and confusion matrix.
  - Visualized insights using **Matplotlib and Seaborn** to interpret model performance.

Personal Projects

- **Notes Sharing Platform** (Live | Code) — **Feb – Apr 2025**
  - Designed and developed a **full-stack Notes Sharing Platform** using **React, Node.js, Express.js, and MongoDB** to centralize academic resources.
  - Implemented **RESTful APIs** with **JWT-based authentication and role-based authorization** to secure user access.
  - Integrated **Google Drive API** for scalable file storage and metadata management, reducing server storage dependency.
  - Built an **admin dashboard** to approve uploads, manage users, and moderate content efficiently.
  - Implemented **advanced filtering and search** functionality to improve content discoverability and user experience.
  - Deployed the application on **Render**, ensuring high availability and real-time access.
  Tech Stack: MongoDB, Express.js, React, Node.js, REST APIs, JWT, Google Drive API

- **Secure Chat Application** (Live | Code) — **May – Nov 2025**
  - Designed and developed a **secure real-time chat application** using the **MERN stack** to enable instant user communication.
  - Implemented **JWT-based authentication and authorization** to manage secure user registration and login.
  - Built **real-time messaging** functionality using **Socket.IO** supporting private and group chats.
  - Applied **TLS/SSL-based encrypted communication** to ensure secure data transmission between clients and server.
  - Designed MongoDB schemas to handle **message persistence and chat history** efficiently.
  - Containerized the application using **Docker**, improving deployment consistency and scalability.
  Tech Stack: MongoDB, Express.js, React, Node.js, REST APIs, Socket.IO, JWT, TLS/SSL, Docker

Education

- **Government Engineering College Palamu, Daltonganj** — **2022 – Present**
  B.Tech. in Computer Science and Engineering — *CPI: 7.52 (till 5th sem) 2022–25*
- **St. Thomas High School Topchanchi** — **2018 – 20**
  Class XII — *Percentage: 60.3*
- **Kendriya Vidyalaya Gomoh** — **2017 – 18**
  Class X — *Percentage: 86.7*

Certifications

- **Quiz Competition – 1st Position**, Government Engineering College Palamu (National Technology Day, 16 May 2025) (Certificate)
- **Smart India Hackathon (SIH) 2025 – Certificate of Participation** (Certificate | Live Demo)
- **IDEA TRIBE – 2025 (Certificate of Participation)** – JUT, Ranchi (Certificate)

LeetCode   GeeksforGeeks