

Piyush Singhal

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EXPERIENCE

Web Development Intern <i>The Sparks Foundation</i>	June 2024 – August 2024
<ul style="list-style-type: none">Engineered a secure and highly scalable full-stack banking system using HTML, CSS, JavaScript (ES6), and MySQL, featuring user authentication, transaction tracking, and balance updates via RESTful APIs.Implemented JWT auth, bcrypt hashing, and session handling for secure user management; optimized backend and SQL for 30% faster response time using modular MVC architecture.Managed version control using GitHub and GitHub Actions, tested APIs with Postman, and deployed a containerized instance using Docker for real-world performance simulation with 100+ simulated users.	<i>Remote</i>

PROJECTS

YouTube Comment Sentiment Analysis Platform GitHub Link Website Link	
<ul style="list-style-type: none">Built an NLP-driven sentiment analysis platform using Python, Google Colab, and Anvil, achieving 92% classification accuracy on 1000+ YouTube comments.Integrated YouTube Data API for data collection and applied TextRank for topic extraction; visualized trends using Matplotlib in a real-time Anvil UI dashboard.Reduced latency by 40% and processing overhead by 35% through API optimization, efficient data handling, and deployment via Docker and Google Drive API.	<i>92% classification accuracy on 1000+ YouTube comments</i>
PDF Chat Application Analysis GitHub Link Website Link	
<ul style="list-style-type: none">Architected AI-powered PDF assistant using LangChain, OpenAI LLMs (GPT-3.5), and FAISS, enabling semantic search and real-time document-based Q&A with over 90% response accuracy.Implemented document parsing and semantic indexing using PyPDF2 and HuggingFace/BERT embeddings, enabling users to perform accurate context-based queries through scalable FAISS-powered vector search.Developed a lightweight, production-grade Streamlit UI with multi-tab navigation and async handling; deployed via Docker to efficiently serve 500+ real-time queries/day on low-memory systems.Collaborated with a team of peers using Agile practices, including sprint planning and code reviews, and communicated progress regularly through virtual stand-ups and GitHub issue tracking.	<i>500+ real-time queries/day</i>
Smart Study Management Platform GitHub Link Website Link	
<ul style="list-style-type: none">Developed full-stack AI-powered study management using Next.js 16, TypeScript, and Supabase, achieving 95% Lighthouse score and reducing manual planning time by 70% through intelligent study plan generation.Architected scalable REST APIs and PostgreSQL database with row-level security, implementing real-time analytics dashboards that optimized query performance by 60% and increased user engagement by 45%.Built responsive UI with Tailwind CSS and OAuth 2.0 authentication (Google), achieving 100% WCAG accessibility compliance and reducing bounce rate by 35% through optimized UX design.	<i>100% WCAG accessibility compliance</i>

EDUCATION

NIMS University <i>Bachelor of Technology in Computer Science(3rd Year), CGPA: 9.16/10</i>	Jaipur, India 2023 – 2027
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ACHIEVEMENTS

- Solved **500+ DSA problems** on platforms like **CodeChef** and **LeetCode**, strengthening core coding skills.
- Secured **AIR 83** among **20,000+ participants** in **CodeChef Starter 184 (2025)**.
- Completed **GenAI Mastery Workshop (OpenAI × NxtWave Buildathon)** with hands-on exposure to **LLMs, prompt engineering, and OpenAI APIs**.
- 1750+ rating** on **CodeChef**, **1400+ rating** on **Codeforces** and **1700+ rating** on **Leetcode**.

TECHNICAL SKILLS

Programming Languages: C, C++, Python, Java, JavaScript, SQL
Web Technologies: React.js, Node.js, RESTful APIs, HTML, CSS, Bootstrap, Next.js, Typescript
AI/ML Stack: LangChain, LLMs (GPT, BERT), NLP, Sentiment Analysis, PyTorch, Anvil
Tools: Git, GitHub Actions, Google Cloud, Kubernetes, PyPDF2, Google Colab, Streamlit, Docker
Core Concepts: Data Structures and Algorithms, OOPS, DBMS, CN, CI/CD, Agile, Teamwork, Communication