Dhwani Vyas

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Professional Summary

Computer Science and Engineering student with a 9.76/10 CPI and proven expertise in full-stack development, machine learning, and natural language processing. Developed production-ready applications using React.js, Node.js, MongoDB, and PyTorch. Led technical workshops for 100+ students and achieved 1st Runner-up at Breach'25 National Hackathon. Solved 350+ LeetCode problems demonstrating strong algorithmic problem-solving abilities.

Education

Pandit Deendayal Energy University — Gujarat, India
Bachelor of Technology in Computer Science and Engineering, GPA: 9.76/10 — *August 2023 – May 2027*

Nelson School — Gujarat, India
Gujarat Higher Secondary Education Board, Percentage: 97.52% — *August 2022 – May 2023*

Technical Skills

Programming Languages: Java, Python, JavaScript, TypeScript, C++, C
Web Technologies: HTML5, CSS3, React.js, Next.js, Node.js, Express.js, Flask, RESTful APIs
Databases: MongoDB, MySQL, SQLite, Database Design, Query Optimization
Machine Learning: PyTorch, TensorFlow, Scikit-learn, Hugging Face, NLP, BERT, RoBERTa, Transformer Models
Tools and Technologies: Git, GitHub, Docker, Redis, Postman, WebSocket
Core Competencies: Data Structures, Algorithms, Object-Oriented Programming, System Design, API Development, Agile Methodology

Projects

Spark – Smart Parking Management System
Full-Stack Web Application — Node.js, Express.js, React.js, MongoDB, WebSocket — *October 2025 – December 2025*

- Engineered a full-stack parking management system using MERN stack serving automated parking operations for commercial facilities
- Architected and implemented RESTful APIs for vehicle registration, real-time slot allocation, session tracking, and automated billing system with 99% uptime
- Integrated WebSocket technology to deliver real-time parking slot availability updates and session status notifications to users
- Optimized database performance using MongoDB indexing strategies and aggregation pipelines, reducing query response time by 60%
- Designed responsive user interface with React.js ensuring cross-browser compatibility and mobile responsiveness

Fake News Detection with Explainable AI
Machine Learning and NLP Project — Python, BERT, RoBERTa, Flask — *February 2025 – May 2025*

- Developed and fine-tuned BERT and RoBERTa transformer models for automated misinformation detection, achieving 88% classification accuracy on test dataset of 10,000+ articles
- Integrated Google Fact-Check API to generate explainable AI predictions with 5+ evidence signals per article, improving transparency and user trust
- Built production-grade Flask backend REST API for real-time news credibility verification
- Optimized model inference pipeline reducing response time to under 3 seconds per article through efficient preprocessing and caching strategies
- Implemented natural language processing techniques including tokenization, embedding generation, and attention mechanisms for enhanced model performance

Professional Experience

Astittva Welfare Foundation Gujarat, India
Rural Education Technology Intern *May 2024 – July 2024*

- Collaborated with educators and volunteers to deliver comprehensive digital literacy and computer fundamentals training programs in rural educational settings
- Trained 200+ students in essential computer skills including typing proficiency, file management, Microsoft Office Suite (Word, Excel, PowerPoint), and internet safety practices
- Designed and implemented interactive learning modules incorporating hands-on activities, increasing classroom engagement by 40% and improving student retention rates
- Facilitated digital transformation initiatives by providing technical training to educators on educational technology tools and curriculum digitization strategies
- Developed structured lesson plans and assessment frameworks to measure student progress and learning outcomes in digital literacy programs

Leadership and Achievements

- **1st Runner-up Award** – Breach'25 National Hackathon, competing against 500+ participants nationwide with innovative AI-powered solution
- **LeetCode Problem Solving** – Solved 350+ data structures and algorithms problems demonstrating proficiency in dynamic programming, graphs, trees, and system design
- **Technical Leadership** – Served as Web Development and AI Head at ACM PDEU Student Chapter, leading workshops on artificial intelligence and Python programming for 100+ students
- **Academic Excellence** – Ranked in Top 1% Science percentile in Gujarat Higher Secondary Education Board examinations (2023)
- **Community Impact** – Mentored junior students in competitive programming and guided 20+ peers in web development and machine learning projects