Prasad Gade

+91 8446240041 | prasadgade4405@gmail.com | Mumbai, India | linkedin.com/in/prasad-gade05/ | github.com/prasad-gade05 |
prasad-gade05.github.io/Portfolio/

EDUCATION

Bhartiya Vidya Bhavan's Sardar Patel Institute of Technology — Mumbai, India
B.Tech in Computer Engineering, Minor in Management SPJIMR (S. P. Jain Institute of Management & Research) — *Expected June 2027*
CGPA: 9.4/10.0

EXPERIENCE

Data Analyst Intern (Summer Internship) — Certificate Link — June 2023 – July 2023
R3 Systems India Pvt. Ltd. — *Nashik, India*
- Learned Data Analysis and Business Intelligence using Power BI. Developed various BI dashboards using datasets of companies
- Project: Delivered a sales dashboard for North Wind Traders, improving data visibility by 70%, by analyzing company datasets and designing interactive BI dashboards in Power BI.

PROJECTS

Lex Simulacra - AI-Powered Legal Courtroom Simulator with Multi-Agent RAG — Project Link — November 2025
- Engineered an 8-agent multi-role legal simulation (defense, prosecutor, judge) that achieved **99% citation accuracy**, validated systemically through a LangGraph workflow with state management and an iterative debate flow.
- Reduced legal research time by **75%** across **100K+ legal documents** by architecting an advanced RAG pipeline; performance gains were benchmarked on retrieval latency and relevance scores using intelligent chunking, BM25 re-ranking, and **ChromaDB vector indexing**.
- Attained a **3.2× increase in context relevance** and eliminated hallucinations by implementing structured context compression (18K→15K tokens), IPC-weighted scoring (5.0× importance), and real-time hallucination detection, as confirmed by citation density metrics.
- Boosted user engagement by **60%**, evidenced by longer session durations and higher trial completion rates, by developing a FastAPI backend with SSE streaming, a real-time Streamlit UI, and seamless Kanoon API integration for **Indian case law retrieval**.
- **Tech stack:** Python, LangChain, LangGraph, FastAPI, Streamlit, ChromaDB, Sentence-Transformers, Ollama LLM, Kanoon API, BM25, NLTK, Scikit-learn, Pydantic

Comparative Analysis of ML/DL Models for Intrusion Detection — Project Link — October 2025
- Delivered **99.99% recall** and **100% precision** by comparing 6 models (Decision Tree, XGBoost, Transformer, Autoencoder, Logistic Regression, Naive Bayes) on the **8.6M-sample** TII-SSRC-23 dataset (79 features).
- Tree models were **12.8× faster** (DT: 4.7 min vs Transformer: 60 min) with 10× fewer false negatives (13 vs 130) and full **SHAP** interpretability.
- Reduced errors by 30% via hybrid **SMOTE**-undersampling for 1:6653 class imbalance.
- Tree models provided **20× higher inference** throughput (1,005K/s) and 5/5 interpretability over DL.
- **Tech:** Python, Sklearn, XGBoost, PyTorch, TensorFlow, SHAP, Pandas, NumPy, Imbalanced-learn

Celestial Object Classifier using Sloan Digital Sky Survey Dataset — Project Link — November 2024
- Achieved **99.07% accuracy** classifying **10,000 celestial objects** into stars, galaxies, and quasars, validated through 0.99 F1-score, by engineering **10 features** including color-indices and log-transformed redshift.
- Improved Neural Network accuracy from **95.13% to 98.78%** using Keras Tuner across **10 trials**, by optimizing a 96-32-16-3 architecture with tuned hyperparameters.
- Benchmarked **4 classifiers** (Decision Tree: 87.75%, KNN: 94%, Neural Network: 99%, Random Forest: 99.07%) on **3,000 test samples**, by applying GridSearchCV with **5-fold CV** and **960+ model fits**.
- **Tech stack:** Python, Scikit-learn, Keras, Keras Tuner, Pandas, NumPy, Matplotlib

SKILLS

Languages: Python, C, C++, Java, JavaScript
Frameworks: Flask, Django
Data-Science/ML: Pandas, NumPy, Matplotlib, Seaborn, PyTorch, Scikit-Learn, TensorFlow, Hugging Face, Keras, OpenCV
Databases/DevOps: SQL, MongoDB, Firebase, Git, GitHub
Business Intelligence Tools: Power BI
Soft Skills: Leadership (served as General Secretary, Student Council), Time Management, Public Speaking, Writing, Communication

CERTIFICATIONS

Data Science Job Simulation - Boston Consulting Group (Forage) — Certificate Link — January 2025
- Simulated the role of a Data Scientist by performing EDA, feature engineering, modeling, and data-driven storytelling.

Accenture UK - Developer and Technology Job Simulation (Forage) — Certificate Link — January 2025
- Explored SDLC, Agile vs Waterfall, DevOps trends, and Python debugging through hands-on simulation.

Introduction to Cloud Computing on AWS (Udemy) — Certificate Link — July 2024
- Learned core AWS services like EC2, S3, RDS, DynamoDB, CloudFormation, and Docker for cloud-based architectures.

Java Training (IIT Bombay) — Certificate Link — March 2024
- Completed structured Java programming training and cleared certification test.

The World of Computer Networking (Udemy) — Certificate Link — June 2024
- Studied OSI/TCP-IP models, routing, IP addressing, and subnetting in depth.

ACHIEVEMENTS

Winner - Tech Horizon National Hackathon — Project Link — March 2025
- Secured 1st place out of 80+ national teams in a 36-hour hackathon by designing a full-stack donation platform that eliminated fund misuse via automated supplier-based routing and LLM-driven donor-NGO matchmaking.
- Built a transparent end-to-end ecosystem where funds reach verified vendors through smart request tracking, fraud-prevention logic, and a provable LLM-driven matchmaking algorithm, and delivered a polished demo and proof of concept that earned top recognition from industry judges across multiple evaluation rounds.
- **Tech stack:** React, TypeScript, MongoDB, Vite, Tailwind CSS, React Router, ESLint, Context API. — Certificate Link