



VISHAL KUMAR A

AI ENGINEER | DATA SCIENTIST | SOFTWARE DEVELOPER

ABOUT ME

AI Engineer & Software Developer specializing in AI first applications, data science, and automation. Experienced in building end-to-end machine learning pipelines, backend systems, and data processing workflows that transform raw R&D and operational data into actionable insights. Hands-on with Python, SQL, Flask, Pandas, NumPy, scikit-learn, TensorFlow, PyTorch, Power BI, and REST APIs. Comfortable working with LLMs, NLP, GenAI, and predictive analytics through projects and coursework. Strong at translating business requirements into AI-driven solutions, improving productivity, data quality, and decision-making while following AI ethics and best practices.

CONTACT

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SKILLS

Programming & Development

Python (Pandas, NumPy, Flask, scikit-learn, TensorFlow, PyTorch, Regex, BeautifulSoup, PyPDF2, OpenPyXL), **SQL**, **HTML5**, **CSS3**, **JavaScript**, **REST APIs**, **Object-Oriented Programming (OOP)**

Web & Full-Stack Development

Front-end: HTML, CSS, basic JavaScript
Back-end: Flask, REST APIs, Server-side Logic, Authentication, Admin Dashboards
Deployment: Linux, Nginx, Gunicorn, SSL, DNS, Docker (basic), CI/CD (basic)
Cloud & MLOps: AWS/Azure (basic exposure), Model Deployment, MLOps practices, Model Monitoring

Data Science & Machine Learning

Supervised & Unsupervised Learning (Regression, Classification, Decision Trees, Random Forest, XGBoost, K-Means, PCA)
Experience with LLMs, NLP, and GenAI through projects (sentiment analysis, text classification).
Model development lifecycle: data cleaning, feature engineering, training, validation, and evaluation using metrics such as accuracy, F1-score, precision/recall, RMSE.

WORK EXPERIENCE

Data Analyst Intern — JK Tyres 3 Months

Automated PDF-to-Web-to-Excel data pipelines, reducing R&D processing time by 70% and improving data quality.

- Built Python + Flask tools to convert unstructured PDF data into structured Excel/SQL formats.
- Implemented real-time validation, monitoring, and error handling for experimental workflows.
- Processed large R&D datasets using data cleaning, preprocessing, and predictive analytics techniques.
- Collaborated with cross-functional teams to align solutions with business needs using agile practices.

Software Developer (FREELANCING)

EmailOnBusiness 1 year 9 months

- Built a high-performance, distributed email verification platform handling 100K+ parallel checks using Python, Flask, Celery, and message queues.
- Implemented multi-layer verification: SMTP, MX/DNS, SPF/DKIM/DMARC, catch-all detection, and risk scoring for enterprise accuracy.
- Developed dashboards and KPIs to track domain quality, bounce risk, and verification insights.
- Built authentication, role-based access, billing logic, and admin dashboards for the SaaS platform.
- Deployed and maintained secure Linux servers with Nginx, Gunicorn, SSL, DNS, and basic system hardening.

EDUCATION

JSS Science and Technology University, Mysuru

MSc in Data Science

Garden City University, Bengaluru

Bachelor's Degree in Data Science and Cybersecurity

St. John's High School

ICSC - 10th

National Pu College

PCMB - 12th

PROJECTS

Real-Time Email Verification System

- Built a distributed verification platform with parallel workers, reducing latency and providing real-time dashboards for queue and domain analysis.

Semi-Automated Web Data Capture Tool

- Developed a tool allowing users to highlight form inputs and map them directly to Excel, automating repetitive workflows.

Bulk PDF-to-Excel Extraction System

- Created scalable PDF parsing logic for extracting text, fields, and tables, integrated with a web UI for validation and Excel export.

Sales Insights Dashboard (Power BI)

- Designed interactive Power BI dashboards analyzing ₹984M+ sales, highlighting top regions and products using advanced DAX measures and KPIs to support management decisions.

Multi-Source Student Performance Predictor

- Built a model that predicts student performance by combining attendance logs, assignment scores, emotional/behavioral survey data, and digital learning activity. Identified key performance factors using feature importance analysis.
- Implemented using scikit-learn (Random Forest/XGBoost) with feature importance analysis.

Student Feedback Sentiment Analyzer

- Scrapped anonymous student feedback and used NLP techniques (VADER/TextBlob, basic LLM experimentation) to classify sentiments related to teaching, infrastructure, and curriculum. Produced insights and dashboards for department improvement.

DECLARATION

I declare that the information provided is true to the best of my knowledge.

Signature
Vishal Kumar A