

YUVRAJ SINGH GAHLOT

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PROFESSIONAL SUMMARY

Data Scientist with 3+ years building AI/ML solutions for businesses, backed by 7 years of analytical problem-solving in engineering operations. Proven track record delivering measurable results: 25% efficiency improvements in process optimization and 30% reduction in data processing times through Python-based automation and machine learning models. Specialized in generative AI, predictive analytics, and building production-ready data pipelines. Successfully built and deployed 5+ end-to-end ML projects including customer churn prediction (87% accuracy), real estate price prediction, NLP sentiment analysis, and AI-powered SaaS applications with FastAPI backends.

TECHNICAL SKILLS

Programming Languages:	Python, SQL, JavaScript, TypeScript
ML/AI Frameworks:	Scikit-learn, XGBoost, NLTK, OpenAI API
Data Science:	Pandas, NumPy, Statistical Modeling, Predictive Analytics, EDA, Feature Engineering
Backend & APIs:	FastAPI, REST APIs, Node.js
Web Development:	React, Next.js, HTML, CSS
Data Visualization:	Tableau, Power BI, Plotly, Streamlit, Microsoft Excel
Tools & Platforms:	Git/GitHub, Jupyter, Airtable, PostgreSQL
Specializations:	Generative AI, Machine Learning, Business Process Automation, ETL Pipelines, Data Analysis

PROFESSIONAL EXPERIENCE

Data Analyst (Freelance)

February 2022 – Present

Mumbai, India

- ▶ Developing machine learning solutions for 8+ SMB clients across fintech, e-commerce, and real estate sectors through practical application of data science techniques and generative AI
- ▶ Built predictive analytics models using Python, Scikit-learn, and XGBoost that reduced client data processing time from 6 hours to 4.2 hours (30% improvement) through automated data workflows handling 50K+ daily records
- ▶ Created AI-powered automation tools leveraging OpenAI GPT APIs, reducing manual business processes by 40% for client operations including document processing and customer inquiry handling
- ▶ Designed and implemented RESTful APIs using FastAPI to serve machine learning models, enabling real-time predictions with 200ms average response time
- ▶ Developed full-stack SaaS applications combining TypeScript, Next.js frontend with Python/FastAPI backend, achieving deployment of 3 production applications
- ▶ Built interactive dashboards in Tableau, Power BI, and Streamlit to visualize business metrics and ML model predictions, improving client decision-making speed by 35%
- ▶ Applied generative AI and machine learning to solve real-world business problems while continuously expanding expertise in emerging AI/ML techniques and frameworks
- ▶ Worked directly with clients to translate business requirements into technical solutions, managing end-to-end project delivery from requirements gathering to deployment

Data Analyst - Operations

January 2019 – January 2022

Gahlot Mining Consultancy, Udaipur, India

- ▶ Analyzed operational datasets (500K+ records) to optimize mining processes, developing foundation in data analysis, statistical modeling, and Python-based automation
- ▶ Applied data-driven approaches improving process efficiency by 25% through systematic analysis, predictive modeling, and implementation of optimization algorithms
- ▶ Built automated data processing workflows using Python (Pandas, NumPy) and SQL to handle large datasets for operational reporting, reducing manual processing from 8 hours to 2 hours daily
- ▶ Created data visualizations and interactive dashboards using Tableau that improved reporting efficiency by 35% and enabled data-driven decision-making across operations teams
- ▶ Developed automated systems for data collection, cleaning, and validation, ensuring 99.5% data quality and consistency across multiple data sources
- ▶ Gained experience in translating complex technical requirements into actionable analytical solutions through cross-functional collaboration with engineering and management teams

PROJECTS

Data Science Portfolio - 5 Production-Ready ML Projects

[GitHub Repository](#)

Technologies: Python, Scikit-learn, XGBoost, NLTK, Pandas, Plotly, Streamlit, Jupyter

- ▶ Built comprehensive portfolio of 5 industry-ready machine learning projects: customer churn prediction (87% accuracy), real estate price prediction ($R^2 = 0.91$), NLP sentiment analysis with VADER, K-means customer segmentation, and ARIMA time series sales forecasting
- ▶ Deployed interactive web applications using Streamlit for model inference, data visualization, and real-time predictions accessible to non-technical users
- ▶ Implemented complete ML pipeline for each project: data cleaning, exploratory data analysis, feature engineering, model selection and comparison, hyperparameter tuning with GridSearchCV, and comprehensive model evaluation
- ▶ Achieved measurable performance metrics: classification models with 85%+ accuracy, regression models with $R^2 > 0.90$, and properly validated time series forecasts

Smart Spreadsheet - AI-Powered SaaS MVP for SMBs

[GitHub Repository](#)

Technologies: TypeScript, Next.js, FastAPI, OpenAI GPT API, PostgreSQL, React

- ▶ Developed multi-tenant spreadsheet application with CSV upload, real-time analytics engine, interactive charts, and AI-generated business insights using OpenAI GPT-4
- ▶ Integrated natural language querying capabilities allowing users to ask questions about their data in plain English, with AI generating SQL queries and visualizations automatically
- ▶ Built scalable RESTful API backend with FastAPI serving 15+ endpoints for data manipulation, chart generation, and AI features with JWT-based authentication
- ▶ Implemented real-time data processing pipeline handling CSV files up to 100MB with progress tracking and error handling for data quality validation

Dubai Real Estate Hub - Luxury SaaS Dashboard

[GitHub Repository](#)

Technologies: JavaScript, React, Node.js, REST APIs, MongoDB

- ▶ Created professional real estate agent dashboard with property management, client tracking, analytics visualization, and automated reporting features
- ▶ Implemented responsive UI with modern design patterns following industry best practices, ensuring seamless experience across desktop and mobile devices
- ▶ Built scalable architecture supporting multi-user access with role-based permissions (admin, agent, viewer) and real-time data synchronization
- ▶ Integrated third-party APIs for property data enrichment and market analytics, providing agents with comprehensive property intelligence

EDUCATION

Bachelor of Engineering in Mining Engineering

Pacific University, Udaipur, India

January 2015 – January 2019

Specialized in environmental systems analysis with emphasis on quantitative analysis, technical problem-solving, and data-driven decision making. Applied statistical methods, optimization algorithms, and modeling techniques to extraction processes, building strong analytical foundation for machine learning, predictive analytics, and business automation applications.

PROFESSIONAL DEVELOPMENT

Data Science and AI – Core Expertise

Intellipaart | January 2023

Demonstrated proficiency in advanced data science techniques and artificial intelligence applications. Validated skills in machine learning algorithms, statistical modeling, deep learning fundamentals, and AI-driven problem solving for data-informed business decision-making.

KEY ACHIEVEMENTS

- ✓ Built and deployed 8+ production-ready data science and full-stack SaaS projects serving real business clients with measurable ROI
- ✓ Improved operational efficiency by 25% through data analysis and optimization techniques in industrial operations environment
- ✓ Reduced client data processing time by 30% (from 6 hours to 4.2 hours) through automated Python workflows and machine learning pipelines
- ✓ Achieved 87% accuracy in customer churn prediction model and $R^2 = 0.91$ in real estate price prediction model
- ✓ Successfully transitioned from engineering to data science through dedicated self-learning, freelance projects, and hands-on application of ML techniques
- ✓ Contributed to open-source project (n8n-docs) supporting automation and workflow tools community