HARSHITA SINGH

PGP (1 year), AI&Data Science, 2026

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Result-oriented and passionate AI & Data Science graduate eager to leverage hands-on experience in machine learning, generative AI (LLMs, RAG), Computer Vision and NLP to build impactful, real-world solutions while continuously mastering emerging technologies.

ACADEMIC DETAILS

COURSE	SPECIALIZATION	INSTITUTE/COLLEGE	SCORE	YEAR
PGP (1 year)	AI&DS	Jio Institute	8.91 CGPA	2026
B.Tech	Mechanical Engineering	National Institute of Technology Raipur	79.3%	2023
CLASS XII	Science	Career Public School, Korba (C.G)	89.4%	2019
CLASS X		Delhi Public School, Korba (C.G)	95%	2017

Subjects / Electives: Deep Learning, Gen & Agentic AI, Machine Learning, NLP, Big Data Engineering, MLOps, Statistics
Technical Proficiency: Python, SQL, Langchain, Langgraph, CrewAI, RAG, Tableau, Pandas, Scikit-Learn, Predictive Modeling

WORK EXPERIENCE   14 Months

Decision Analytics Associate, ZS Associates   *Jul 2023 - Sep 2024*
- Analyzed healthcare data using **Excel, SQL, and Tableau** to drive insights for business decision making.
- Streamlined data workflows in **Dataiku DSS**, improving the efficiency of **raw-to-final data transformation** by 30%.
- Completed **end-to-end analytics projects** with direct client interaction, ensuring timely and high-quality deliverables.

INTERNSHIP

Automation Intern, Yes Bank   *Oct 2025 - Nov 2025*
- Automated in Make; scraped latest reports from 15 bank websites via Apify and processed via Nanonet.
- Integrated AI tools and APIs to extract, clean, and structure data; generating interactive charts and reports with automated workflows.
- Built **end-to-end financial data pipeline**, reducing manual data collection by 90%, enabling real-time financial insights and reporting.

PROJECTS

Document Layout Analysis using YOLOv8 and DocLayNet - Deep Learning, CV   *Jul 2025 - Aug 2025*
- Developed **Document Layout Analysis** system using **YOLOv8** to detect **11 layout elements** in documents.
- Fine-tuned a YOLOv8 object detection model using PyTorch on the **80K+ image DocLayNet dataset**; deployed a Flask web app for real-time inference.
- Achieved **mAP@50 of 92.5%** for accurate layout detection; enabling solution for OCR/NLP fusion.

AI Trip Planner - Agentic AI, GenAI   *Aug 2025 - Sep 2025*
- Built an LLM-powered intelligent agent using **LangGraph and LangChain**, tool calling, and state management.
- Integrated external systems via **real-time APIs** (Tavily, OpenWeatherMap) to support multi-step reasoning workflows.
- Built real-time AI travel planning application via **FastAPI, Streamlit, and LangSmith** tracing with cost estimates, top destinations, and weather forecast.

Diabetes Classifier - Machine Learning, MLOps   *Nov 2025 - Dec 2025*
- Developed Diabetes Prediction model using **Random Forest and XGBoost** on clinical dataset to classify diabetes risk with **80% F2 score**.
- Performed data preprocessing, feature selection, and hyperparameter tuning using train-test split and **GridSearch** to optimize model performance.
- Built and containerized prediction API using **FastAPI and Docker** for real-time inference on new patient data.

Amazon Customer Reviews – Spark Data Pipeline   *Jul 2025 - Aug 2025*
- Built a **Databricks ETL pipeline** using **PySpark** and **SQL** to process **7M+ Amazon reviews**, enabling data-driven business insights.
- Implemented a multi-layered **Delta Lake architecture** to ensure data quality and create robust, analytics-ready tables.
- Derived **7 key business insights** on customer sentiment and product performance, built insightful matplotlib graphs.

Product Returns Forecasting with Time Series Models   *Jun 2025 - Jul 2025*
- Analyzed Kaggle's historical product sales and returns data for **time series forecasting of return volumes**.
- Executed EDA, stationarity tests, **ADF/KPSS ACF/PACF** analysis; implemented Holt-Winters Exponential Smoothing, SARIMA, and SARIMAX models.
- Achieved superior performance with **Holt-Winters model** (RMSE: 42.325, MAE: 32.553), outperforming SARIMA/ SARIMAX.

AWARDS AND RESPONSIBILITIES

- Earned a PPO through ZS Campus Beats nationwide case study competition. — ZS Associates   *Sep 2022*
- Appointed as the Academic Representative for AI&DS'2026 batch— Jio Institute   *2025-2026*
- Ranked among the top 10 out of 12,000+ students in NTSE Stage 1 for Chhattisgarh state — NTSE   *Jun 2017*
- Achieved 2nd rank in the International Mathematics Olympiad (SOF) at the city level — SOF   *Jun 2017*