

# Bineet Kumar Gupta

+91-6207732950 | Bengaluru, Karnataka | [bineetgupta117@gmail.com](mailto:bineetgupta117@gmail.com)  
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## SUMMARY

Data Scientist with 1+ years of experience bridging statistical modeling and production engineering. Proficient in developing **Generative AI** applications and deploying scalable models on **AWS**. Skilled in building automated pipelines, leveraging a strong foundation in statistics and **MLOps** best practices to optimize workflows.

## EXPERIENCE

**Colca.ai** — *AI/ML Engineer*, Bengaluru

Aug 2025 – Present

- Improved lead conversion rates by **45%** and qualification accuracy by **60%** through AI-driven lead scoring and personalized outreach automation processing **50k+ leads/month**.
- Reduced manual operational effort by **80%** by automating end-to-end lead processing, enrichment, and communication workflows using **GenAI** and **cloud infrastructure**.
- Reduced model deployment time by **40%** through architecting scalable **CI/CD pipelines** and implementing data versioning for reproducible **MLOps** workflows.

**Nimesa** — *AI/ML Engineer*, Bengaluru

Jan 2025 – July 2025

- Designed end-to-end automation pipelines using **n8n** and **Make**, integrating **Google Gemini** to automate **70%** of manual tasks, including candidate screening and AI-driven LinkedIn content generation.
- Built a RAG chatbot using **LangChain** and **Vector Databases**, enabling accurate context retrieval from unstructured internal documents with **W&B Weave** for execution tracing, token usage monitoring, and latency optimization.
- Deployed chatbot architecture on **AWS** using **Docker**-based services running on **EC2**, ensuring high availability and reliable production operations.

## PROJECTS

### AI-Powered Lead Qualification & Outreach Generation System

- Impact:** Improved lead qualification accuracy by 60%, reduced outreach effort by 80%. **Scale:** 50k leads/month.
- Engineered lead enrichment and ranking pipeline using Scrapin API for data collection and FAISS vector similarity scoring; built GenAI email generator on GCP Vertex AI using LangChain and marketing frameworks (AIDA, BAB).
- Deployed on AWS EC2 with Docker, GitHub Actions CI/CD, S3 data versioning, and PostgreSQL for automated ETL pipelines and reproducible workflows.
- Stack: Python, PostgreSQL, FAISS, LangChain, GCP (Vertex AI), Docker, EC2, S3, CI/CD, Infobip API, Scrapin API

### Text Summarization Application (Hugging Face)

- Impact:** Achieved ROUGE-Lsum 49.86, deployed for production testing. **Scale:** Trained on 14k+ conversations from Samsum dataset.
- Fine-tuned BART-large transformer model on Samsum dataset using PyTorch and Hugging Face Transformers for conversational summarization with transfer learning techniques.
- Optimized inference performance through batching and tokenization, reducing latency by 30%; deployed Flask RESTful API with Docker containerization for scalable model serving.
- Stack: Transformers, PyTorch, Flask, Docker, Python, NLP, Deep Learning

### Air Quality Index (AQI) Prediction & Forecasting

- Impact:** Predicted AQI with 87% accuracy; deployed real-time dashboard. **Scale:** 5.75 lakh+ pollution and weather records across 203 cities.
- Preprocessed 575k+ records and engineered pollution-weather fusion features using Pandas, NumPy, and statistical analysis; built Random Forest and XGBoost models achieving 87% accuracy.
- Implemented ARIMA, GRU, and LSTM for time series forecasting; developed MLOps pipeline with model drift detection, automated retraining, and deployed interactive dashboard using Streamlit.
- Stack: Python, XGBoost, LSTM, ARIMA, Streamlit, Pandas, NumPy, Machine Learning, Time Series Analysis

## SKILLS

**Languages:** Python, PySpark, R, SQL, SAS, MATLAB

**Libraries:** NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, TensorFlow, Keras, LangChain

**Databases & Tools:** PostgreSQL, MongoDB, Excel, Tableau, GitHub, Git, Power BI, Streamlit, Flask, Postman

**Core Areas:** Generative AI, Machine Learning, Deep Learning, Data Analysis, NLP, RAG, Web Scraping, ETL

**Cloud & DevOps:** AWS (EC2, ECR, Route53, S3), GCP (Vertex AI), Docker, DVC, MLflow, GitHub Actions, FastAPI

## EDUCATION

**Master of Data Science and Analytics**, Jain University

2023 – 2025

Coursework: MLOps, Deep Learning, Big Data Analytics, Advanced Data Visualization

**Bachelor of Statistics**, St. Xavier's College

2019 – 2022

Coursework: Probability Theory, Statistical Inference, Regression, Time Series Analysis