

Aniket Arora

Senior Data Scientist | ML, Analytics & GenAI Enablement

Brussels, Belgium

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Summary

Senior Data Scientist at IBM Consulting in Energy & Utilities, delivering predictive maintenance and KPI analytics for multi-million-device operations. Built reusable Python analytics foundations that reduced extraction time 3–5x (from 60+ minutes to 10–15 minutes) and enabled faster intervention prioritization for maintenance teams.

Experience

IBM Consulting

Brussels, Belgium

Industry focus: Energy & Utilities

Senior Data Scientist

Jan 2025 – Present

- Architected and built a Python ETL foundation across Elasticsearch, Postgres, and TimescaleDB; standardized cleaning/type validation, duplicate and null handling, and DataFrame merges while introducing uv, pre-commit, and ruff for maintainable analytics code.
- Reduced extraction time 3–5x (from 60+ minutes to 10–15 minutes) and saved ~2–3 hours per analysis cycle over 3+ months.
- Identified a vendor software issue affecting ~50% of devices; supported a patch that resolved ~99% of impacted units.
- Drove predictive maintenance analyses for a multi-million device portfolio using ensemble models (XGBoost), enabling faster intervention prioritization and supporting a substantial reduction in incident share.
- Led resolution of ~200 incidents per month with a small team; translated analytics into actionable remediation plans with clients and partners.
- Engineered high-performance KPI pipelines using SQL and TimescaleDB; optimized query performance via materialized views, reducing reporting latency from hours to ~3 minutes and cutting query runtimes from minutes to seconds.
- Established analytics standards and onboarded 6–7 maintenance team members on project setup, business context, investigation scripts, and ITIL processes.

Data Scientist

Apr 2022 – Dec 2024

- Built an end-to-end geospatial analytics workflow using cell tower data and Plotly to identify device clusters impacted by telecom network issues.
- Developed reusable investigation notebooks adopted by a 6–7 member maintenance team and still used for recurring triage and root-cause analysis.
- Partnered with stakeholders to define operational KPIs and translate analytics into business-facing reporting and decision support.

Junior DevOps Engineer

Sep 2021 – Apr 2022

- Improved a client ecosystem on GitLab; established Angular best-practice guidelines and built a PoC to raise development quality.

Automation Intern

Feb 2021 – Sep 2021

- Implemented internal automations and evaluated RPA vendors to streamline workflows; produced documentation and training materials to support enterprise-wide adoption.

Selected Projects (Personal)

Apollo Fitness (AI Agent Ecosystem) | Python, LangChain, PyTorch, OpenAI API

2024 – Present

- Developing a fitness ecosystem using AI agents to generate personalized workout and nutrition plans.
- Implemented Agentic workflows and RAG to process user preferences and provide real-time, context-aware suggestions.
- Demoed a private prototype to a small group of testers.

Government Client Hackathon (3rd place) | IBM watsonx

2025

- Built an AI assistant prototype for dispute-resolution advisory in a 3-day multidisciplinary hackathon.

- Built a computer-vision prototype to analyze office occupancy and space utilization.

Talks & Teaching

- Guest Lecturer, Howest University of Applied Sciences (2025) – Delivered sessions on RAG, AI Agents, and Responsible AI for student and industry audiences.

Skills

AI & Machine Learning

Generative AI, LLMs, Agentic Workflows, RAG, PyTorch, TensorFlow, LangChain, Scikit-learn, XGBoost

Data & Cloud

Python (Pandas, NumPy), SQL, Elasticsearch, Postgres, TimescaleDB, Grafana, Docker, Google Cloud Platform (GCP), IBM Cloud, IBM watsonx, Git

Languages

Dutch (Native), English (Fluent), Hindi (Conversational), French (Elementary)

Certifications

- **IBM Generative & Agentic AI Foundation** (2024)
- **IBM AI Associate Data Scientist** (2022)
- **Energy, Environment and Utilities Insights and Solutions (Bronze)** (2025)
- **Trustworthy AI and AI Ethics** (2022)
- **Enterprise Design Thinking Practitioner** (2024)

Education

Howest

2018 – 2021

Bachelor's degree, New Media & Communication Technology (NMCT)

Thesis: In what situation can I use Go in an MLOps pipeline compared to Python?