

NILOY GHOSH

AI & Data Science Leader | Building & Scaling Production AI Products

ghosh.niloy@gmail.com • +91 97425 09547 • linkedin.com/in/niloy-ghosh • niloyghosh.com

AI and data science leader with 17+ years in technology and data science, building and shipping production AI products across financial services, SaaS, e-commerce, and telecom. I lead the teams and platforms that take applied AI from model to deployed product, owning the full lifecycle from prototype to scaled release. Products proven in production at 1,000+ enterprise customers, with a filed U.S. patent.

CORE COMPETENCIES

AI/ML Strategy & Roadmap • Data Science & AI Leadership • AI Productization & Platform Development • Product Strategy & Roadmap • 0-to-1 Product Development • Experimentation & A/B Testing • MLOps & Model Governance • Microservices & API Design • Cross-functional & Executive Stakeholder Management • Team Building from the Ground Up

TECHNICAL SKILLS

Languages: Python, PySpark, SQL, R, SAS, JavaScript

GenAI / LLM: LLMs, RAG, LangChain, LangGraph, CrewAI, HuggingFace, AWS Bedrock, Vector DBs (Pinecone, FAISS), Model Context Protocol (MCP)

ML / DL: PyTorch, TensorFlow, Keras, Scikit-Learn, SciPy, Pandas, NumPy

MLOps & Infra: MLflow, Docker, Kubernetes, CI/CD (GitHub Actions, Jenkins)

Data & Pipelines: Databricks, Snowflake, Airflow

App / API: FastAPI, Django, React, Next.js

BI / Viz: Tableau, QlikView

Cloud: AWS, Azure, GCP

WORK EXPERIENCE

SiriusAI India Pvt. Ltd., Gurugram

Since Jan 2026

Associate Director – Data Science

Solutions architect and technical lead across 3 data science teams (~15-20), delivering production AI platforms for global banking and payments clients.

- Architected and led an agentic **SAR investigation platform** that investigates alerts raised by transaction monitoring systems against FinCEN red flags, generates case narratives, and routes them for analyst review before filing, cutting investigation time by ~50%. Built as a configurable, reusable system for financial institutions.
- Led development of an **anomaly RCA platform** that detects operational anomalies, identifies root cause, and recommends remediation, now serving 8 product lines for a global enterprise client.
- Built a **feature and model governance platform** that monitors data, feature, and model quality and detects drift in production, with configurable tests, thresholds, and alerts. Launched for a global payments client's product division and scaling toward 30+ production models; surfaced 8 data-quality and drift incidents in its first month.
- Owned end-to-end AI delivery for a Middle East bank, automating **Trade Finance compliance checks** with business and compliance stakeholders to meet regulatory requirements.
- Built a **customer-acquisition model** for a global digital payments platform to optimize merchant targeting and onboarding.

Apptio (IBM Software Labs), Bangalore

May 2020 – Jan 2026

Manager, Data Science

Led a team of 6 data scientists building AI/ML products for Cloudability and the broader Apptio platform, a cloud cost management (FinOps) suite.

- Conceived and built the **Cloud Sustainability Service** from the ground up, an ML-powered carbon-footprint analytics product spanning AWS, Azure, GCP, and Oracle. Deployed in production for 250+ enterprise customers. Filed a U.S. patent for the underlying innovation.
- Owned and scaled the **Rightsizing Recommendation Service**, delivering real-time cloud spend optimization across AWS, Azure, GCP, and Oracle to 1,000+ enterprise B2B customers.

- Architected the **Cloud Recommendation Engine** for multi-cloud migrations as a reusable microservice platform serving 100+ customers across multiple Aptio products, with explainable AI (XAI) for recommendation transparency.
- Led the **Auto-classification Service**, using ML to map customer data into the TBM taxonomy and cutting customer onboarding from 3 months to 2 weeks.
- Built a **RAG-based AI assistant** to speed customer query resolution, drawing on consolidated documentation and product demo videos.
- Partnered with Sales and Customer Success to build customer **retention and acquisition models** supporting churn reduction and growth.

Citigroup, Bangalore

Apr 2017 – May 2020

Senior Data Scientist (Manager)

Technical lead for data science initiatives across U.S. retail banking and cards, driving ML adoption and standardizing the model development lifecycle.

- Built a **GBM model to predict deposit balance erosion**, enabling Relationship Managers to intervene proactively with at-risk customers and retaining an estimated \$4.5M+ in deposit balances.
- Led **Credit Line Increase (CLI) campaign analytics** for the North America cards business, using ML to optimize targeting and reduce direct-mail marketing costs, delivering \$1.2M in annual savings.
- Designed and deployed an in-house **AutoML tool** adopted organization-wide, standardizing data preprocessing and model exploration and cutting model development time.
- Built a full-stack **dynamic pricing solution** for U.S. retail bank products (Python, Django) enabling real-time pricing strategies.

Flipkart, Bangalore

Mar 2016 – Mar 2017

Senior Business Analyst

Owned the organization-wide returns KPI, building ML models and cross-functional interventions that measurably reduced returns; core analytics contributor for the flagship Big Billion Day Sale.

Accenture Management Consulting, Bangalore

Jun 2012 – Feb 2016

Consultant

Led a team of 3 for a major Australian bank on wealth and credit-card predictive models; built a New Zealand telecom POC that won a long-term client contract (Pinnacle Award); founded an internal R Center of Practice.

Tata Consultancy Services, Kolkata

Aug 2007 – Jul 2010

Assistant Systems Engineer

Led QA for a financial-services ETL implementation and contributed to a credit-bureau ERP rollout (Oracle E-Business Suite) recognized as “Best Delivered Project” of the year.

EDUCATION

- **MBA**, Vinod Gupta School of Management, IIT Kharagpur (2010–2012), CGPA 8.82
- **B.Tech, Electronics & Communication Engineering**, Kalyani Government Engineering College, WBUT (2003–2007), CGPA 8.58

CERTIFICATIONS

- AWS Certified AI Practitioner (2025)
- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional
- Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate

PUBLICATIONS & IP

- **Patent (filed)**: Cloud Computing Environmental Impact Analysis Software, U.S. Application No. 19/336917, IBM (2025)