DANIAL AMIN

Lead Data Scientist | Head of AI | Senior ML Engineer

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Profile Summary

Tech-literate artificial intelligence leader, expert at optimising AI systems worldwide and machine-learning models to support business growth and innovation. Proficient in creating data-driven strategies and advancing system functionality using modern technologies. Having developed a strong understanding of leading global teams to build scalable AI solutions, combining technical knowledge with business insights to drive digital change and support data-focused economic growth. Committed to uphold AI ethics and compliance with the ability to translate complex AI processes into meaningful business benefits. Known for driving industry progress and inspiring innovation through responsible AI practices and strategic global partnerships.

X Skills and Competencies

Management & Leadership: Effective Communication, Analytical Reasoning, Conflict Management, Problem Solving, Self-Organization, Project Management, Design Thinking, Resource Management, Critical Reasoning, Strategic Thinking AI & DS: Predictive Machine Learning, Reinforcement Learning, Deep Learning, Deep Neural Networks, RNNs & GANs, Bayesian Optimization, Generative AI, Large Language Models, Explainable AI, Retrieval Augmented Generation, Exploratory Data Analytics, Predictive and Perspective Analytics, Time Series Analysis & Forecasting

Programming Languages & Libraries: Python, R, Pytorch, PySpark, Tensorflow, Keras, Pandas, Scipy, Scikit Learn, Matplotlib, Seaborn, NLTK, MATLAB, LabView, LangChain, LangSmith, Docker, Spacy, Dragonfly, SQL

Softwares & Developer Tools: Tableau, PowerBI, Looker, Minitab, SPSS, Visual Studio, PyCharm, Anaconda, JupyterLab, Dockers Cloud Architecture: Microsoft Azure, Google Cloud Platform, Amazon Web Services

Languages: English (C1), French (A1), Urdu (C2), Punjabi (C1)

EXPERIENCE

• LLM & AI Scientist for SDIC

Nov. 2024 - Date

Samsung Design Innovation Center, Samsung Electronics

Onsite, France

- ▶ Spearheading development of multi-staged internal design companion for computational designers and product developers to enhance the data-driven design optimization process at SIDC.
- AI & Data Science Lead

Sep. 2023 - Nov. 2024

i13 Ventures Studio

Remote, Ireland

- ▶ Spearheaded the development and implementation of advanced AI solutions utilizing Large Language Models (LLMs), including GPT variants and open-source models, significantly enhancing product capabilities and market reach for over 300 startups.
- ▶ Led the adoption of cutting-edge technologies including Retrieval Augmented Generation (RAG), vector databases for efficient similarity search, and multi-modal bots combining text, image, and audio processing capabilities.
- ▶ Implemented lean and agile practices in AI development, including continuous integration/continuous deployment (CI/CD) pipelines for ML models, reducing product development lifecycle by 4 weeks and enhancing overall efficiency.
- Head of Data Analytics Lead Data Scientist

Feb. 2023 - Sep. 2023

Abacus Global

On-site, Pakistan

- Led a cross-functional team of 15+ data scientists and engineers, fostering collaboration and driving data-centric strategies that significantly enhanced global enterprise clients' AI capabilities across various industries.
- Architected and implemented a big data analytics framework on Google Cloud Platform (GCP), utilizing BigQuery for data warehousing and Dataflow for stream processing, improving data processing speed by 40% and predictive analytics model accuracy by 25%.

• Lead Data Scientist

Feb. 2022 - Feb. 2023

Remote, USA

Automat Solutions Inc

- ▶ Developed and implemented a smart battery performance optimization system using deep reinforcement learning and GPU-accelerated computing (CUDA), enhancing system efficiency by 36% and extending battery life by 25%.
- ▶ Leveraged advanced machine learning techniques, including Genetic Algorithms and Bayesian Optimization for multi-objective optimization of manufacturing processes, achieving a 200% increase in operational throughput and 50% improvement in energy efficiency.

Omdena Inc

Remote, USA

 Led the development and deployment of advanced image classification models for social impact projects, increasing model accuracy by 12% through innovative techniques like transfer learning and data augmentation.

▶ Mentored a team of 5 junior data scientists, fostering a culture of continuous learning and innovation in AI/ML technologies.

Assistant Manager

Aug. 2017 - Nov. 2022

Feb. 2021 - Feb. 2022

On-site, Pakistan

On-Campus, Pakistan

Government of Pakistan

 Developed and implemented AI-based predictive maintenance and anomaly detection systems for critical engineering applications in the aerospace sector, significantly reducing operational risks and maintenance costs by 35%.

Led the design and deployment of a machine learning-powered fuel consumption optimization system, enhancing the accuracy of estimates and reducing error from 2.5% to less than 0.5% at full capacity loading through advanced data analytics and modeling techniques.

EDUCATION

 University of Vaasa Jan. 2025 - Date Doctorate of Science Distance Learning, Finland Rennes School of Business Sep. 2023 – Sep. 2024 Masters in Business Administration On-Campus, France MIT Institute for Data, Systems and Society Jan. 2024 – May 2024 Data Science and Machine Learning: Making Data-Driven Decisions Distance Learning, USA University of Wisconsin, Madison Aug. 2022 – May 2023 Micro Masters in Business: Data, Insights and Analytics Distance Learning, USA University of California San Diego Aug. 2021 – Mar. 2023 Micro Masters in Data Science Distance Learning, USA Aug. 2019 - Nov. 2023 Massachusetts Institute of Technology Micro Masters in Statistics and Data Science Distance Learning, USA Institute of Space Technology Sep. 2013 – Aug. 2017

PROJECTS

• Bob-The Startup Advisor

B.S in Aerospace Engineering

- Developed and deployed an enterprise level contextualized and grounded large language model based solution for supporting startups through ideation and incubation stage.
- Tech Stack: Python, LangChain, Pinecone, Azure, LangServe, FastAPI
- Sandy-The Financial Advisor
 - Finetuned and contextualized a language model with financial analysis knowledge to provide help to financial advisors. Tech Stack: Python, LangChain, Pinecone, Azure, LangServe, FastAPI
- Design and Development of Integrated Intelligence Platform for a Leading Bank
 - ▶ Implemented a project for providing insights to three different departments (Risk Management, Customer Experience, and Operations) at a leading bank in Caribbean to support their digital transformation journey.
 - Tech Stack: Google Cloud Platform, BigQuery, Looker, Python, SAP S4 HANA

Courses & Certifications

Expert Certification in Artificial Intelligence by European Information Technologies Certification Institute

Professional Certificate in Data Analytics by Google

Professional Certificate in **Project Management** by **Google**

Professional Certificate in Data Science by IBM

Specialization in Deep Learning by Deeplearning.ai

Specialization in Natural Language Processing by Deeplearning.ai

Complete Career track of Data Scientist by 365DataScience

Expert track in Data Science Fundamentals on Microsoft Azure by CloudSwyft and Microsoft

Nano degree in **AI Programming with Python** by **Udacity**

• Developer Certification in Data Analysis with Python by FreeCodeCamp

EITCA

Coursera

Coursera <u>Coursera</u>

<u>Coursera</u>

Coursera 365DataScience

FutureLearn

Udacity

FreeCodeCamp