



SAPNA SINHA

DATA SCIENTIST | APPLIED ML/AI |
OPERATIONAL ANALYTICS | RESPONSIBLE AI |
IMAGINEER

PROFILE

10+ years of experience in applied analytics, machine learning, and operational optimization across insurance, e-commerce and automotive domains. Specialized in building real-time data products and predictive models. Proven ability to drive cross-functional initiatives with measurable business impact.

SKILLS

- Data Analysis
- Data Visualization
- Text Analysis + NLP
- Prescriptive + Predictive Modeling
- End-to-end Machine Learning (Supervised, Unsupervised)
- Deep Learning
- Generative AI, LLM
- Customer Analytics
- Jupyter Notebook/ Visual Studio Code
- AWS for ML

WORK EXPERIENCE

Allianz - Global Office

Data Scientist

2023 - PRESENT

- Enhanced roadside assistance (RSA) technician (UK) allocation using ML and logit choice modeling to identify optimal waiting points improving jobs/day/technician and arrival times by 15-20%.
- Ideated, designed, and developed an end-to-end real-time dashboard leveraging NLP, ML, and DL models to predict customer satisfaction, enabling proactive interventions in declining RSA services in Italy, thereby improving customer ratings.

Calida Digital GmbH

Data Scientist

2021 - 2023

- Ideated, designed, and developed a Customer Lifetime Value (CLV) dashboard to optimize customer acquisition strategy using RFM analysis, Pareto/NBD Modeling
- Reduced report turnaround time by 96% through automation of monthly revenue reports using Python and Google Cloud Scheduler.

Voicemed

Machine Learning Researcher

10 Months, 2020

- Developed voice-based COVID-19 screening tool using AI to analyze cough/sounds and detect potential COVID-19 indicators.
- **Winners of Hack for Italy (Health Track) and Hack the Crisis - Sweden (Hack for Sweden, Save Lives- Digital)**, Finalists (Save Lives) for Hack the Crisis - Lithuania and Norway.

BMW Group Car IT

Intern and Master Thesis Student

2019 - 2020

- Built a Streamlit Python app called "Intelligent Log Analyzer" enabling testers to automatically classify SW test failures into issue type - Hardware, software related and accepted failure with 86% test accuracy using text analytics and LSTM DL models.

German Research Center for Artificial Intelligence (DFKI)

Research Assistant

2018 - 2019

- Developed an anomaly detection model by experimenting with various ML algorithms on industrial datasets, achieving 89% weighted accuracy in identifying outliers.
(Publication : <https://arxiv.org/abs/1907.10374>)

IBM (India)

Data Analyst

2012 - 2017

- Designed and delivered recurring and ad-hoc reports/dashboards to monitor SLA and KPI performance in direct collaboration with clients (Excel, Access, VBA, Remedy 8.0).
- Conducted root cause analysis using analytical tools to resolve production issues efficiently (IBM Cognos Analytics, IBM Watson Analytics/ Watson Studio).
- Led team training workshops on dashboard creation with IBM Watson Analytics.

[Website : thisissapna.com](http://thisissapna.com)