

# Alok Kumar

Lead Engineer (Machine Learning)  
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## SUMMARY

Data Science professional with 7 years of experience in building machine learning models, statistical analysis, and data-driven automation. Expertise in developing scalable solutions that optimize business performance. Strong background in forecasting, NLP, GenAI, and cloud-based data solutions.

## EXPERIENCE

<b>Samsung R&amp;D Institute</b> Lead Engineer (Machine Learning) <ul style="list-style-type: none"><li>Designed and led the development of a scalable ad inventory forecasting system using TFT architecture, achieving 90%+ accuracy.</li><li>Scaled the solution globally, contributing to a 3X increase in revenue.</li><li>Built modular, test-driven ML pipelines with high test coverage.</li><li>Integrated CI/CD (GitHub Actions) and SonarQube for automated testing.</li><li>Collaborated with cross-functional teams to deploy ML services with a focus on performance and reliability.</li><li>Led several knowledge-sharing sessions on ML/GenAI within the company, covering key concepts, practical use cases, and best practices to enable cross-functional learning and adoption.</li></ul>	04/2022 - Present
<b>ZAPR Media Labs</b> Data Science Engineer <ul style="list-style-type: none"><li>Automated reporting processes, reducing manual effort by 80%.</li><li>Developed ML-driven audience segmentation in a DMP, driving 15% of total revenue.</li><li>Delivered high-value TV viewership insights with a focus on accuracy and timely delivery.</li></ul>	10/2019 - 04/2022
<b>Analytics Quotient (Kantar)</b> Business Analyst <ul style="list-style-type: none"><li>Managed survey data across 97 countries for Philip Morris, ensuring high data accuracy and reliability.</li><li>Collaborated with cross-functional teams to develop customized dashboards tailored to client needs.</li><li>Developed automated data sanity checks, enhancing data integrity and reducing errors.</li><li>Automated data processing workflows, reducing manual effort 6x.</li></ul>	05/2018 - 10/2019
<b>Rao IIT Academy</b> Trainee Mathematics faculty <ul style="list-style-type: none"><li>Delivered mathematics lectures to IIT JEE aspirants, designed 50+ exam-aligned questions, and improved performance through weekly assessments and progress tracking.</li></ul>	06/2017 - 03/2018

## PROJECTS & HACKATHONS

<b>Conversational AI &amp; RAG-based Chatbots</b> <ul style="list-style-type: none"><li>Developed an LLM-powered chatbot with conversation history tracking, enabling context-aware responses.</li><li>Built a RAG (Retrieval-Augmented Generation) system to improve chatbot accuracy using external knowledge sources.</li></ul>	
<b>AI-powered Video &amp; Website Content Summarization</b> <ul style="list-style-type: none"><li>Designed and developed an AI-based summarization pipeline to extract key insights from videos and web content.</li><li>Utilized LLMs and NLP techniques to generate concise summaries for quick and efficient information retrieval.</li></ul>	
Experience in Fine Tuning open source LLM using LoRA technique to optimize performance and training costs.	

## SKILLS

Programming: Python, SQL  
Cloud Services: AWS (S3, SageMaker, Bedrock)  
Tools and Databases: Athena, Hive, Snowflake, MS-SQL Server, Excel  
Core Skills: Machine Learning, Data Analysis, Forecasting, NLP, GenAI, Automation, DSA & Algorithms

## ACHIEVEMENTS AND RECOGNITION

- Winner of the Samsung Annual Award (2024) - 'New Valley Project of the Year'
- Recipient of Samsung Excellence Award (Q3 2023) - 'Team Awesome'
- Cleared Samsung's Advanced-Level Software Competency Test, demonstrating expertise in advanced software development and problem-solving.
- Completed all levels of the Workera AI Pathway, validating deep expertise in AI concepts and practical applications..

## EDUCATION

<b>IIT(ISM), Dhanbad</b> Dual Degree (B.Tech+M.Tech) in Petroleum Engineering	06/2012 - 05/2017
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