

Soman Yadav

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SKILLS SUMMARY

- **AI/ML Specializations:** Model Governance, Generative AI, Retrieval-Augmented Generation (RAG), Risk Assessment, Machine Learning, Data Structures, Algorithms
- **Regulatory Frameworks:** GDPR (EU), CCPA/CPRA (US), OSFI E-23 & B-10 (Canada), SR 11-7 (US Fed), NIST Privacy Framework, ISO 27701
- **Languages & Frameworks:** Python (advanced), SQL, Bash, Pandas, LangChain, LlamaIndex, TensorFlow, NLTK, SpaCy, NumPy, Scikit-Learn
- **Generative AI Infrastructure:** AWS Bedrock, Azure OpenAI, Snowflake
- **Cloud & Databases:** AWS (SageMaker Clarify & Monitor, S3, EC2), MySQL
- **Development Tools:** Git, GitHub, VS Code, Azure DevOps, Jira, Jupyter Book
- **Visualization & Reporting:** Tableau, Streamlit, Flask, Excel Macros

EXPERIENCE

- **Risk Management Analyst - American Express** Gurugram, India
Sep 2024 - Present
Full-time
 - **Led a cross-jurisdiction gap analysis :** Aligning American Express' enterprise model-risk policies with FRB SR 11-7 and OSFI E-23 guidance.
 - **Model Impact Classification:** Developed a multi-factor model impact framework (complexity, interdependency, materiality) to precisely tier 450+ models by risk and standardize model governance across units.
 - **Model Risk Findings Framework:** Designed risk categorization framework using 6 years of cross-business data that achieved 90% accuracy in model risk assessment, aligning with Federal Reserve standards.
 - **Tollgating Framework:** Lifted first-pass approval from 58 % to 86 % in 6 months. Redesigned enterprise-wide validation framework, standardizing assessment criteria and implementing objective metrics for model submission quality across 7+ modeling teams, enabling consistent evaluation annually.
 - **Enterprise Automation Tool:** Built a Python-based automation tool reducing download time by 75% for model documentation and validation reports, saving 12+ hours per batch while ensuring organized file management.
- **AI/ML Model Steward - Thomson Reuters** Bengaluru, India
Jul 2023 - Sep 2024
Full-time
 - **Model Governance:** Led Thomson Reuters AI governance, ensuring ethical compliance, risk assessment, and robust documentation. Enhanced internal audit processes, increasing Model Review completion for live models from 35% to 95%. Educated stakeholders on governance principles and aligned roles within the RASCI framework for transparent AI/ML lifecycle management.
 - **Conversational AI Development:** End-to-End in-house feature development of conversational AI using LangChain, Snowflake and Large Language Models by designing, building, and executing highly customised Generative AI solutions handling information of 500+ models.
 - **Feature Revamp:** Developed production-ready Generative AI solutions with privacy-by-design principles, implementing data minimization techniques within RAG/MuRAG architectures. Designed secure vector database systems (AWS Kendra, Milvus, FAISS) with access controls and PII filtering layers that ensured sensitive information was protected while maintaining retrieval effectiveness.
 - **Foundational and Applied R&D:** Leveraging LangChain, LlamaIndex, AWS Bedrock, AWS Textract, Azure OpenAI and Large Language Models (including GPT-4, Gemini, Claude, Llama, etc.) for custom-tailored Generative AI production solutions with RAG architecture in Document Classification, Optical Character Recognition, Document QnA, and Document Layout Analysis.
 - **Stakeholder Interaction:** Led 10+ cross-departmental initiatives to standardize AI governance education, aligning diverse team efforts with industry best practices to ensure consistent model lifecycle management and regulatory compliance.

EDUCATION

- **NIIT University** Rajasthan, India
Bachelor of Technology - Computer Science and Engineering (CGPA: 8.04) Jul 2019 - Jun 2023
- **NIIT University** Rajasthan, India
Business Analytics (Minors) Jul 2020 - Jun 2023

PROJECTS

- **Global Customer Experience Enhancer (NLP, Predictive Analytics, Data Integration):** Created an advanced analytics platform to predict and personalize customer support. It integrates data from various touchpoints, utilizing NLP to anticipate issues. AssemblyAI transcribes calls, LangChain manages the NLP pipeline, and custom AI models with Amazon Bedrock and Streamlit create an interactive dashboard for real-time customer insights and recommendations.
 - **Tech:** *Python, Streamlit, AssemblyAI, Amazon Bedrock, LangChain, TensorFlow, Keras* (Jan 2024)
- **YouTube Summarizer (NLP, Feature Computation, Feature Ranking):** Developed a web application that summarizes YouTube videos based on user-defined length criteria. Generates audio and text summary in various languages based on user's preferred length of summary. Utilized Google's T5 base fine-tuned model along with NLTK, Gensim and Spacy.
 - **Tech:** *Python, Pytorch, Transformers, Streamlit* (May 2022)
- **Time Series Forecasting (Data Analysis, Machine Learning, Dashboard):** Built a web app that leverages 9 machine learning models (ARMA, ARIMA, Linear Regression, Random Forest, etc.) to predict future price trends of stocks. Utilized SQL for efficient data storage and management, ensuring seamless integration and retrieval of the dataset.
 - **Tech:** *Python, Statsmodels, Sklearn, Sktime, Database, Streamlit* (Feb 2022)

HONORS AND AWARDS

- **First Runner-Up:** Secured **second position** in Hackathon among **30+ teams** having around **200 students**. Designed and implemented a functional website for college students. Added AR functionality to verify virtual ID cards and VR to view selected places of the university campus. - (Jun 2020)
- **Second Runner-Up:** Won the **third prize** at university Ideathon where a rural resident driven application was designed to serve and empower the rural residents of India by encouraging single window access for the residents to acquire their everyday requirements. - (Dec 2020)
- **First Prize:** Won the category prize by **EchoAR among 600+ participants** at Amity's largest Hackathon. Created an AR-based application that plays videos when scanned over photos. This is an enhanced version of scrapbooks in which people can attach videos along with a particular photo. - (Mar 2021)
- **GirlScript Hackathon India Finalist:** Developed a travel portal where one can experience their dream destination just by the use of their fingertips. Got selected among **top 10 teams of India**. (Jan 2021)
- **Best Research Paper:** Devised a decentralized system to reduce traffic congestion by using "Gauss-Jordan Elimination" and Python (Machine Learning). Won the **best paper** award among **250+ students**. (Nov 2019)

LEADERSHIP & SPEAKING ENGAGEMENTS

- **Campus Community Lead at Google Developer Student Clubs** Rajasthan, India
Led 300+ student technical community as Google DSC Lead (top 352 nationally). *Jul 2021 - Jul 2022*
- **Technical Team Lead at Girlscript Alwar Chapter** Rajasthan, India
Developed websites, conducted Ideathons and mentored students of the community. *May 2020 - May 2021*
- **IBM Z Ambassador** Remote, India
Collaborated with global students from 5+ countries about IBM Enterprise Computing. *Sep 2021 - Dec 2021*
- **Featured Speaker - Hack-Odisha 2.0** Remote, India
National Institute of Technology, Rourkela *Oct 2022*
Delivered tech talk to 300+ engineering students, combining theoretical Data Science concepts with live coding demonstrations.