

ROHIT SHROFF

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PROFILE SUMMARY

AI/ML practitioner with hands-on experience in building, deploying, and scaling machine learning models, especially in NLP and Big Data contexts. Skilled in end-to-end development — from data ingestion and model training to real-time deployment using modern tools like PyTorch, TensorFlow, Docker, and Azure. Developed impactful projects in NLP, resume Q&A engines, and big data pipelines, leveraging state-of-the-art LLMs and vector DBs. Passionate about creating scalable AI solutions that bridge real-world problems with intelligent automation.

TECHNICAL SKILLS

- **Data & Analytics:** Oracle Analytics Cloud (OAC), Data Visualization, Dashboard Development, Data Manipulation, Customer Insights
- **Machine Learning & AI:** Python, Scikit-Learn, TensorFlow, NLP (Transformers, NLTK, SpaCy, PEFT, RLHF, LoRA, PPO)
- **Big Data & Cloud Technologies:** Apache Kafka, PySpark, Cassandra
- **Software Development:** C++, Python, JavaScript, React.js, Node.js, REST APIs, Passport.js
- **Databases & Storage:** SQL, MongoDB (Mongoose), Pandas, ChromaDB
- **Visualization & Reporting:** Tableau, Power BI, Seaborn, Matplotlib, Plotly, Oracle Analytics Cloud (OAC)

EDUCATION

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

BMS College of Engineering 2020 - 2024

HIGHER SECONDARY

Brigade School, JP NAGAR 2018 - 2020
81.4%

SECONDARY

Apeejay School, Nerul completed in 2018
83.6%

EXPERIENCE

August, 2024 - Present

1. Data Analyst (Associate Consultant) at Oracle -

- Designed and delivered customized analytics reports using Oracle Analytics Cloud (OAC), enhancing business decision-making through actionable insights.
- Migrated legacy reports to cloud-based platforms, ensuring seamless data transitions and end-to-end functional parity.
- Refined and optimized large datasets to improve data quality, consistency, and reliability for scalable analytics.
- Built dynamic dashboards with advanced filtering and drill-downs, improving user experience and stakeholder engagement.
- Collaborated closely with clients and business teams to understand analytical needs and translate them into impactful visual and data-driven solutions.
- Acted as SME for OAC and reporting workflows — mentoring new hires, supporting onboarding, and conducting code/data quality reviews.
- Provided continuous feedback and review to peers, improving team-wide efficiency and data storytelling quality.

2. Data Science intern at CodSoft (online internship) -

September, 2023

- During my independent internship at CodSoft, I utilized machine learning algorithms to tackle classification and regression challenges, demonstrating strong problem-solving abilities and achieving accurate predictive models.
- Consistently meeting deadlines and punctually delivering on assigned tasks, I displayed strong time management and reliability.
- [Certificate link](#)

PERSONAL PROJECTS

AI / NLP / Full-Stack ML Projects –

Resumot – Local Resume Q&A Engine (Open Source Project) –

- Built an offline LLM-based system for querying resumes using Sentence Transformers, ChromaDB, and DeepSeek-13B.
- Leveraged llama-cpp-python and GGUF quantization for local inference without APIs, GPU, or cloud.
- Designed a real-time Q&A interface using Streamlit, with chunked text retrieval and context-passing to the LLM.
- Demonstrated scalable vector search using ChromaDB, enabling semantic resume filtering at high speed.
- Focused on edge deployment: lightweight, self-contained, and developer-friendly.
- [Link](#)

Natural Language Processing and Machine Learning

DIALOGUE SUMMARIZATION MODEL ENHANCEMENT AND DETOXIFICATION –

- Developed an advanced NLP model for dialogue summarization, leveraging the **google/flan-t5-base** model.
- Employed Python, PyTorch, Transformers, and other tools for model training and evaluation.
- Processed and prepared data from the **dialogsum** dataset, optimizing it for summarization tasks.
- Implemented Parameter-Efficient Fine-Tuning (PEFT) using LoRA to enhance model performance efficiently.
- Applied Proximal Policy Optimization (PPO) in reinforcement learning to improve summarization quality and reduce output toxicity.
- Integrated a toxicity detection model (**facebook/roberta-hate-speech-dynabench-r4-target**) to ensure ethical AI practices.
- Achieved significant improvements in summarization accuracy, demonstrated by enhanced ROUGE scores.
- Successfully reduced the toxicity levels in the model's outputs, contributing to safer and more responsible AI applications.
- [Link](#)

Big Data

KAFKA DATA PIPELINE FOR STORING AND ANALYSING USER DATA –

- Built using Kafka, Airflow, PySpark, Cassandra and Docker.
- Created a DAG in Airflow to repeatedly call an API for generating a user-data stream.
- The user-data is streamed into Confluent Kafka which is used as a queue to stream the data again into Apache Spark.
- Apache Spark is used to perform live analysis of the data, after which it is stored in Cassandra for further analysis.
- [Link](#)

COURSES AND CERTIFICATIONS

Oracle Cloud & AI Certifications

- OCI Certified Data Science Professional – 2025 ([Link](#))
- OCI Certified Generative AI Professional – 2025 ([Link](#))
- Oracle AI Vector Search Certified Professional – 2025 ([Link](#))
- Oracle Fusion AI Agent Studio Foundations Associate – 2025 ([Link](#))
- Oracle Analytics Cloud Certified Professional – 2024 ([Link](#))
- OCI Certified AI Foundations Associate – 2024 ([Link](#))
- OCI Cloud Infrastructure Foundations Associate – 2024 ([Link](#))

Skills: GenAI, Vector Search, LLMs, Agentic AI, OAC, RL, Cloud Deployment

DeepLearning.AI & Stanford (ML Specialization)

Generative AI with LLMs – DeepLearning.AI & AWS (2023) ([Link](#))

Machine Learning Specialization – Stanford University (2024) ([Link](#))

Skills: NLP, LLMs, Generative AI, Reinforcement Learning, ML Algorithms