

Kartik Raut

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EDUCATION

Northeastern University, Boston, MA. (GPA: 3.8/4.0)

Expected May 2025

Master of Science, Data Analytics Engineering

- **Coursework:** Data Mining, Machine Learning, Computation and Visualization, Machine Learning Operations, Neural Networks and Deep Learning, Natural Language Processing, Statistics

Nagpur University, Nagpur, India

Oct 2020

Bachelor of Engineering, Electronics and Telecommunication

SKILLS

Languages: Python, SQL, NoSQL JavaScript, HTML, CSS

Libraries: NumPy, Pandas, Matplotlib, Scikit-learn, PyTorch, Tensorflow, Seaborn, Langchain, Streamlit

Databases: MySQL, Oracle SQL Developer, MongoDB, PostgreSQL

Technologies: AWS(SageMaker, EC2, S3), Oracle Cloud Infrastructure, Microsoft Azure(Databricks), GCP(Vertex AI)

Tools: Docker, Tableau, Power BI, Kubernetes, Excel, Git, Mlflow, Jenkins, Evidently AI, Grafana, Oracle CRM

Certifications: Oracle Cloud Infrastructure, Oracle Cloud Data Management

EXPERIENCE

Data Analyst | *Accenture, Pune*

Dec 2020 - June 2023

- **Market Analysis & Insights:** Conducted comprehensive data analysis and market segmentation for Vodafone UK, supporting strategic decisions and impacting 15M+ telecom customers
- **Data-Driven Solutions:** Designed and implemented interactive dashboards using tools like Power BI and Tableau to deliver actionable insights, improve performance, and support business strategies
- **Process Improvement & Automation:** Developed automation solutions with scripting in Robo Tester Evolution (RTE), reducing testing time by 20% and enhancing operational efficiency
- **Predictive Modeling & Statistical Analysis:** Utilized statistical methods, including root-cause analysis and advanced techniques, to validate findings and optimize network settings, ensuring billing accuracy and reliability
- **Data Extraction & Analysis:** Extracted and analyzed large-scale data sets using SQL Developer, resolving complex quantitative issues and enhancing operational outcomes
- **Collaboration & Agile Execution:** Managed the execution, analysis, and debugging processes within Oracle Siebel CRM

PROJECTS

Amazon Product Recommendation System | *SageMaker, S3, EC2, CloudWatch, Airflow, Mlflow, Jenkins* Dec 2024

- Designed a robust MLOps pipeline for Amazon product recommendations, achieving a 40% efficiency improvement in data preprocessing and deployment workflows using AWS
- Built parallel processing pipelines with Apache Airflow to enable real-time sentiment analysis of large datasets
- Established CI/CD and CT/CM pipelines using Jenkins for automated model versioning, deployment, and retraining triggered by data drift detection
- Integrated Grafana and Evidently AI for performance monitoring and drift detection, triggering automated retraining workflows to maintain recommendation accuracy
- Fine-tuned DistilBERT models for sentiment classification, deployed them to AWS Endpoints, and developed a Streamlit app for interactive analytics and recommendations

AdVision | *BART, OpenCV, NLP, Transformers, Pytesseract, PyTorch, NumPy, Pandas*

Aug 2024

- Engineered a BART-based classifier for analyzing video ad content
- Implemented summarization, classification, Vision Transformer (ViT) for image processing, Tesseract OCR for text extraction, and processed audio transcripts
- Secured 80% accuracy and evaluated ads on 22 criteria, including calls to action and emotional impact

Article Summarizer | *Langchain, Streamlit, FAISS, APIs (OpenAI)*

May 2024

- Developed a Streamlit web app using OpenAI's language model for Natural Language Understanding (NLU)
- Implemented advanced text processing techniques, including document splitting and embedding generation
- Employed FAISS library for efficient vector indexing, query processing and high dimension data handling