

Radhika Ravindra

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WORK EXPERIENCE

Artificial Intelligence Research Assistant
San Diego State University, San Diego, CA

Jan 2024 – present

- Processed 200K+ samples using Python, SQL & Hugging Face frameworks to fine-tune VLMs & LLMs (Llama 3.2 8B, Llama 3.1 72B, Smaug 72B)
- Built a multilingual, multimodal Gen AI chatbot app for SHARP Healthcare using RAG, improving specialist response time by 31%
- Optimized inference efficiency by 40% using model compression techniques (PyTorch, TensorFlow), reducing runtime by 25%
- Developed BERT-based NLP models to analyze 4GB+ financial reports, predicting risk factors with 85% accuracy
- Leveraged Unix/Git commands to manage distributed training on NVIDIA GPUs, achieving 99% uptime for model training
- Designed Tableau dashboards to visualize model performance, enhancing cross-functional team understanding by 70%

Associate Data Scientist
Tata Consultancy Services, Mumbai, India

Jul 2021 – Jul 2023

- Architected AWS data pipelines (S3, Lambda) to automate ETL workflows, cutting processing time by 30%
- Enhanced Python-based ETL pipelines, enabling 50% faster ML model testing and deployment
- Created Tableau dashboards for model performance tracking, improving deployment decision accuracy by 25%
- Resolved software issues in ML pipelines, reducing downtime by 30% and boosting edge device performance
- Produced Tableau reports for non-technical stakeholders, increasing adoption of data-driven insights by 40%
- Collaborated in Agile Scrum teams to integrate ML insights into product development, achieving 95% on-time delivery

Data Analyst Intern
Sigmaflux, Mumbai, India

Dec 2019 – May 2020

- Streamlined SQL-based e-commerce workflows, improving data processing efficiency by 35%
- Crafted complex SQL queries to optimize marketing strategies, increasing campaign ROI by 18%
- Boosted website traffic by 79% in 3 months through SEO and web development optimizations
- Documented analysis processes, ensuring 90% knowledge retention for future projects
- Automated data reporting workflows, delivering insights 62% faster to stakeholders

PROJECTS

Time-Series Model for Preventing Mental Health Risks in Children - *Machine Learning* | *Time-Series Analysis* | *Health data* ([Link](#))

- Implemented gradient boosting models (XGBoost, LightGBM, CatBoost) to predict internet overuse, achieving 85% validation accuracy
- Processed time-series sensor data, reducing model training time by 30% through efficient feature engineering

AI Financial Advisor using AWS: Real-time Recommendations for Financial Portfolio - *Real-time Analytics* | *AWS* | *Financial Data* ([Link](#))

- Developed an AI-driven financial advisory system using Python and AWS (Lambda, S3, SageMaker), serving 1,000+ synthetic portfolios
- Built serverless architecture to automate real-time market data updates, reducing processing time by 60%
- Deployed XGBoost model for portfolio analysis, achieving rebalancing accuracy of 0.8

Gen AI-Powered Multimodal Healthcare Recommendation System - *LLMs* | *RAG* | *Chat-Bot* ([Link](#))

- Applied RAG and ranking algorithms to analyze 10,000+ patient records, improving doctor recommendation accuracy by 25%
- Simplified medical reports using GPT-4o and RAG, generating jargon-free summaries with 90% readability

TECHNICAL SKILLS

- Programming Languages:** Python (Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch), R, SQL
- AI Frameworks & Libraries:** TensorFlow, PyTorch, Keras, Hugging Face, OpenCV, Sci-kit Learn, XGBoost, LightGBM
- Cloud Platforms:** AWS (SageMaker, EC2, S3), Microsoft Azure (ML Studio, Databricks), GCP (AI Platform, BigQuery)
- Databases & Data Warehousing:** MySQL, AWS Redshift, Snowflake, BigQuery, MongoDB
- BI & Visualization Tools:** Tableau, Power BI, Looker, Matplotlib, Seaborn, Plotly
- Methods & Techniques:** ETL, Data Pipelines, Model Deployment, A/B Testing, Hyperparameter Tuning, Feature Engineering

EDUCATION

San Diego State University, California | Master of Science in Big Data Analytics | GPA: 3.82/4

Aug 2023 – May 2025

Mumbai University, India | Bachelor of Engineering in Electronics | GPA: 3.54/4

Aug 2017 – July 2021