PRIYANKA RANI

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Graduate student in Management Information Systems with hands-on experience in SQL, Python, and Oracle. Skilled in building backend systems, designing data pipelines, and implementing analytics solutions. Developed and deployed real-world applications including recommendation systems, IoT dashboards, and NLP-based models. Proficient in working with cloud platforms, enterprise tools, and cross-functional research projects.

EDUCATION

University of Maryland, Baltimore County, *MS in Management Information Systems* | Maryland, USA — May 2025
GPA: 3.9 / 4.0

Godutai engineering College For Womens, *B.Tech in Electronics and Communication Engineering* | Kalaburagi, India — Aug 2021
GPA: 9.17 / 10

RELEVANT COURSEWORKS

Data Mining | Database Systems | Machine Learning | Data Visualization | NLP | AI Ethics

EXPERIENCE

University of Maryland, Baltimore County, *Research Assistant* | USA — May 2024- Present

- Designed 10+ AI-powered caselets by analyzing peer-reviewed papers, streamlining instructional content development by 40%.
- Engineered prompt-based content generation using Python and OpenAI/Hugging Face APIs, reducing manual content creation time by 60%.
- Optimized chatbot performance through 15+ zero-shot and few-shot prompt designs, improving response accuracy by 25%.
- Deployed applications on AWS with 99.9% uptime, ensuring reliable access for academic users.

University of Maryland, Baltimore County, *Graduate Assistant* |USA — Feb 2024- May 2024

- Structured 50K+ data points for LLM fine-tuning, improving training efficiency by 30%.
- Used Wispher to automate transcription, cutting manual processing time by 45%.

GTTC, *Data Analyst (Data & IoT Systems)* | (Kalaburagi, India) — Aug 2021 - March 2023

- Collected and analyzed time-series sensor data from PLC-based systems to identify equipment anomalies and optimize industrial workflows.
- Created real-time monitoring dashboards that ingested data from 50+ IoT sensors, improving fault detection response by 20%.
- Contributed to predictive maintenance efforts by preparing datasets for anomaly detection models using Python and SCADA logs.

SKILLS

Programming Languages	Python, Java, SQL, PLSQL, C, C++, Assembly
Prompt Engineering	Few-shot prompting, context management, temperature tuning, LLM fine-tuning
Tools and Platforms	Excel,Tableau, MATLAB, AWS, Power BI, PyTorch, IT Infrastructure, Data Pipelines, Oracle
AI/ ML Frameworks	OpenAI API, Hugging Face Transformers, TensorFlow, PyTorch, CRF, SAQUET, WEKA
CRM and Communication	A Microsoft Office Suite, Collaborative Tools
Core Skills	Market Research, Data Analysis, Data Visualization, Cloud Solutions, Business Intelligence

PROJECTS

Music Recommendation System – Streamlit, ML, Cosine Similarity — Apr 2025 - May 2025

- Built a web-based music recommender using Streamlit.
- Implemented content-based filtering and ML models (e.g., cosine similarity) to personalize recommendations with >87% match accuracy based on user preferences.
- Added explainable AI features to improve transparency and user trust, increasing user session time by 30% during testing.

Named Entity Recognition (NER) - *Using Google Colab* — March 2024 - May 2024

- Developed a custom Named Entity Recognition model using Conditional Random Fields (CRF), achieving F1-score of 0.84 on a labeled dataset.
- Preprocessed and tokenized over 10,000 text samples, enhancing model precision and reducing noise.

Generative AI-Powered Question Evaluation (Python, SAQUET) — Feb 2021 - May 2021

- Evaluated AI-generated questions using the SAQUET toolkit, analyzing over 1,500 questions for quality metrics.
- Applied Transformer-based models (BERT variants) to validate semantic integrity, increasing accuracy by 23%.