Nithish Reddy Konakati

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SUMMARY

Results-driven data professional with 5+ years of experience delivering analytics solutions across EV telematics and academic research, with a strong focus on operational efficiency and insight generation. Expert in SQL, Python, Tableau, and AWS for building scalable pipelines, automating reports, and visualizing key metrics. Proven ability to drive data-driven decisions through statistical modeling, trend analysis, and interactive dashboards.

PROFESSIONAL EXPERIENCE

Research Analyst | Texas Tech University | Texas **Jan 2024 -present**

- Designed a multi-source search system integrating **GPT** with **Google** and **DuckDuckGo APIs** for real-time summarization and citation generation, improving information accuracy by **40%** compared to single-source queries.
- Built a CSV-processing mode for batch ingestion of **500+ data points/hour**; containerized and deployed on AWS ECS using Docker for scalable and reliable access.
- Engineered a **centralized data warehouse** by integrating fragmented financial datasets from Pitchbook and 5+ external sources, aggregating **30,000+ records** to support trend analysis across investors, deals, and companies, and reducing market intelligence report generation time by 45%.

Data Analyst | Switch Mobility | Chennai, India **July 2019 – June 2023**

- Developed interactive **Tableau dashboards** and **Excel visualizations** for real-time EV telemetry, integrating component-level data, fault logs, and vehicle locations—enabling a **15%** improvement in battery efficiency and a **5–10%** reduction in subsystem energy.
- Utilized **advanced SQL queries** to join, filter, and aggregate high-volume telematics data across subsystems, supporting root cause analysis and KPI generation for monthly fleet performance reporting.
- **Automated EDA** and reporting pipelines to retrieve and analyze fleet-wide EV data from **AWS S3**, compute KPIs, and generate monthly reports—cutting manual effort by **90%** and standardizing analytics delivery.
- Built a condensed **Python-Excel plotting tool** to compare motor torque across vehicle speeds, reducing torque map optimization time by **50%** and supporting engineering decisions.
- Applied **mixed-effects modeling** and **hypothesis testing** to forecast EV energy consumption using 2 years of telemetry data across 40 vehicles, achieving a **6%** prediction error margin and improving fleet scheduling.
- Executed text analytics using **NLP techniques** such as **tokenization** and **LDA topic modeling** to classify unidentified IT support tickets into relevant categories, achieving a coherence score of **0.6** and reducing ticket categorization effort by **60%**.

PROJECTS

PhishShield-Scalable ML-Based Phishing Detection | Python | Scikit-learn | mlflow | AWS | Docker | GitHub Actions | Matplotlib

- Designed and implemented a robust end-to-end machine learning pipeline to detect phishing websites, achieving **96%** accuracy.
- Utilized **AWS S3** for cloud storage, **AWS EC2** for scalable compute, **Docker** for containerization, and integrated **MLflow** for efficient model tracking, version control, and experiment management.
- Automated **CI/CD workflows** with **GitHub Actions** to streamline model deployment and ensure seamless updates.

Q&A Network Security Bot | Python | Flask | LangChain | Llama-3.2-3B | Chroma DB | Hugging Face Embeddings

- Implemented a **Retrieval-Augmented Generation (RAG)** pipeline for an AI-powered Q&A Bot using Python and Flask, integrating **Llama-3.2-3B** for real-time query processing and **Chroma DB** for efficient document retrieval.
- Engineered a vector-based semantic search system using **Hugging Face's DistilBERT** embeddings and **cosine similarity** for document retrieval. Developed an interactive web interface with **HTML, CSS, and JavaScript** for seamless user interaction.

YouTube Transcript Summarizer | Streamlit | Python | LLaMA-2 7B | LoRA | YouTube Transcript API

- Developed a **Streamlit web app** to extract YouTube transcripts and generate concise, context-aware summaries.
- Fine-tuned the **LLaMA-2 7B** model using **LoRA** and optimized prompt engineering, achieving a **10%** improvement in **BERT Score** for enhanced summarization accuracy.

SKILLS

Programming & Analysis: Python, SQL, R, Excel, VBA, Google Sheets, Jupyter Notebooks
Visualization & BI Tools: Tableau, Power BI, Looker, Matplotlib, Seaborn, Plotly, Excel (Pivot Tables, Power Query)
Data Handling & Modeling: Pandas, NumPy, Scikit-learn, Statsmodels, Forecasting, A/B Testing, Hypothesis Testing, Time Series
Databases & ETL: MySQL, PostgreSQL, MongoDB, BigQuery, Snowflake, Apache Spark, Hadoop, Airflow
Cloud & DevOps: AWS (S3, EC2, RDS), GCP, Azure, Docker, Git, CI/CD, REST APIs, GitHub, Jira

EDUCATION

Master of Science in Computer Science, *Texas Tech University | CGPA: 3.9/4* **Aug 2023 — present**
Bachelor of Technology in Electrical Engineering, *National Institute of Technology, Kurukshetra, India* **Aug 2015 — Apr 2019**