

# Lorven Reddy Kanduru

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## Education

University of Massachusetts Lowell

Sep 2023 – May 2025

Master's degree in Computer Science;

**Relevant Coursework:** Evaluation of Human-Computer Interaction, Data Mining, Internet & Web Systems.

Jawaharlal Nehru Technological University Hyderabad

Aug 2019 – Jul 2023

Bachelor of Technology, Computer Science, Minor in AI/ML

**Relevant Coursework:** Data Analytics, Information Retrieval Systems, Database Management Systems.

## Work Experience

University of Massachusetts Lowell

Jan 2024 – May 2025

Graduate Assistant/ Data Analyst

- Developed **Python** scripts to clean, transform and analyze event data from multiple systems, reducing manual data entry errors by **40%** and enhancing the accuracy of operational reports.
- Developed complex **SQL** queries in **Snowflake** to aggregate and summarize **space utilization**, **staffing**, and **resource allocation** data, enabling **data-driven forecasting** and improving operational planning.
- Analyzed campus-wide space and resource utilization using **R25 analytics** and built interactive **Tableau** dashboards, enabling faster, insight-driven decisions on event scheduling and space optimization.
- Streamlined logistics reporting using **Excel VBA** and **Power Query**, reducing manual report generation time from several hours to under **30 minutes**.
- Built an **ETL pipeline** integrating **StarRez exports** with **Excel** and **SQL-based reporting tools**, streamlining monthly transaction summaries and reducing manual work by **35%**.

Netxcell

Apr 2021 – Jun 2023

Data Analytics Engineer

- Optimized **relational database** designs and refined complex **SQL** queries to ensure data integrity and improve access to financial and operational **KPIs**, enabling faster, data-driven decisions across business units.
- Built and maintained interactive **Power BI** dashboards connected to real-time data sources, delivering actionable insights on sales performance and financial health to key stakeholders.
- Monitored and enhanced **data pipelines** to reduce failure rates by **30%**, ensuring timely and accurate delivery of customer and operational data for strategic initiatives.
- Developed and maintained **RESTful APIs** for seamless integration between internal systems and third-party applications, improving **data synchronization** and reducing manual effort by **30%**.
- Leveraged **AWS** services such as **S3** for data storage and **Lambda** for event-driven tasks, enhancing scalability and cost-efficiency in analytics workloads.

## Projects

Image Feature Narrator

- Implemented an image captioning system using CNN and LSTM for feature extraction and sequence generation.

Predictive Classification using BERT

- Built an NLP pipeline for sports commentary classification using BERT for multi-label classification.
- Integrated Pytesseract for OCR to extract text from images for comprehensive analysis.

Structured Retrieval-Augmented Generation (RAG) for PDFs

- Built an AI-powered document retrieval system using LangChain and OpenAI models and implemented text processing and chunking.

Agenda

- Developed a full-stack task management application with a React frontend and a Node.js backend.
- MongoDB configured for persistent storage and APIs tested using Postman.

## Skills

**Programming:** Python, SQL, JavaScript, Shell Scripting (UNIX)

**Databases:** MySQL, PostgreSQL, MongoDB, Snowflake

**Web/Frameworks:** React, Node.js, RESTful APIs

**Cloud/DevOps:** AWS (S3, Lambda, EC2, CloudWatch), Git, Docker (basic), GitHub

**ML/NLP:** Scikit-learn, TensorFlow, PyTorch, Keras, Hugging Face, spaCy, OpenAI API, LangChain, PyPDF

**Visualization & Reporting:** Google Analytics, Power BI, Tableau, Excel (PivotTables, Power Query, Charts, Macros), 25Live Analytics.