DATHWIK KOLLIKONDA

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EDUCATION

New Jersey Institute of Technology, Newark, NJ January 2024 – December 2025
Master of Science in Computer Science
Courses: Database Management Systems, Machine Learning, Python for Web API Development.

Swarna Bharathi Institute of Science and Technology, India August 2019 – July 2023
Bachelor of Technology in Computer Science and Engineering
Courses: C, Data Mining, Operating Systems, Computer Networks, Data Structures.

SKILLS

Programming Languages: Python, Java, JavaScript, SQL
Backend & Systems: REST APIs, Distributed Systems, Data Pipelines
Frontend: HTML, CSS, React, TypeScript
Data & Infra: Pandas, NumPy, Matplotlib, psutil, SQL, Firebase, AWS (EC2, S3)
Tools: Git, Docker, Linux

PROJECTS

Birthday Dinner Draw December 2025
Full-stack web application for secure event entry management

- Designed and built a production-ready web application to securely collect and manage event entries
- Implemented role-based access control using Firebase Authentication and Firestore security rules to restrict admin-only operations
- Built robust validation logic to prevent invalid, duplicate, or late submissions while maintaining usability
- Developed an admin dashboard to randomly select winners from eligible entries with auditability and re-selection support
- Owned the system end-to-end: requirements gathering, frontend, backend, security, deployment, and testing

Financial Data Analytics & Modeling May 2025
Data preprocessing, analysis, and modeling of historical market data

- Built data preprocessing and analysis pipelines for large historical financial datasets
- Implemented and compared Linear Regression and LSTM models using TensorFlow/Keras for time series forecasting
- Performed data preprocessing, feature engineering, and visualization with Pandas, NumPy, and Matplotlib
- Trained models on adjusted closing prices and evaluated performance with MSE and RMSE metrics
- Designed and documented the entire workflow in Jupyter Notebook

Valorant Game Analytics Dashboard April 2025
Data analytics platform for gameplay performance insights

- Built a data-driven analytics system to ingest, clean, and analyze large volumes of gameplay data from external APIs
- Designed data pipelines to transform raw, inconsistent match data into structured datasets for querying and visualization
- Developed interactive dashboards to surface trends and insights for non-technical users
- Optimized data processing workflows to reduce latency and improve dashboard responsiveness
- Focused on correctness, data integrity, and usability in the presence of noisy or incomplete data

System Resource Monitoring Tool November 2024
Custom system monitoring utility inspired by Glances

- Built a Linux-based system resource monitoring tool to track CPU, memory, disk, process, and network metrics in real time
- Implemented detailed CPU and process monitoring including utilization, uptime, temperature, and per-process resource usage
- Collected and displayed memory, disk I/O, and network statistics with a focus on correctness and performance
- Leveraged system libraries and Linux interfaces to gather low-level resource information
- Optimized data collection routines to minimize monitoring overhead on the host system
- Collaborated with a team to design and build a Linux-based system resource monitoring tool inspired by Glances

ADDITIONAL EXPERIENCE

- Experience translating ambiguous real-world problems into data-driven software solutions