Chaitanya Ratnaparkhi

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SUMMARY

Data Analyst with strong experience in data preparation, SQL optimization, statistical analysis, and building data-driven backend systems. Skilled in transforming large datasets into actionable insights through dashboards, reports, and visualizations. Hands-on experience with machine learning, data pipelines, cloud services (AWS), and cross-functional collaboration. Adept at writing analytical scripts, improving data accuracy, and optimizing performance of data-centric applications.

CORE SKILLS

- **Data Analysis:** Data cleaning, preprocessing, exploratory analysis, trend identification statistical analysis (hypothesis testing)
- **Databases:** MySQL, PostgreSQL, Oracle, SQL optimization, stored procedures
- **Data Tools:** Power BI, Tableau, Google Analytics, MLflow, Postman Excel (Pivot Tables, VLOOKUP)
- **Programming:** Python (Pandas, NumPy), SQL, Java, JavaScript, C++, TypeScript
- **Machine Learning:** CNNs, deep learning, transformer models, statistical modeling
- **Cloud & Pipelines:** AWS Lambda, S3, EC2, automated pipelines, CI/CD
- **Other:** Data visualization, reporting, Agile/Scrum, REST APIs, JSON, data governance & data quality

EDUCATION

Master of Science in Computer Science | Stevens Institute of Technology, NJ, USA   May 2025
Bachelor of Engineering in Computer Science | Marathwada Mitra Mandal's College of Engg., India   June 2023

EXPERIENCE

Sikhi Solutions Inc, Howell, NJ | Software Developer | June 2025 – Present

- Cleaned, transformed, and analyzed backend datasets to optimize API response times and system performance.
- Developed SQL queries, improving data retrieval times with optimized indexing and schema refinements.
- Created automated scripts to validate and process large datasets, improving data accuracy and consistency.
- Collaborated with stakeholders to translate analytical findings into actionable improvements for backend systems.
- Implemented automated data validation checks, reducing inconsistencies by 35% and strengthening data quality.
- Built dashboards and monitoring metrics to communicate performance trends and system health.
- Analyzed API logs and performance data to identify bottlenecks, contributing to improved stability and throughput.
- Enhanced data processing workflows and pipelines, increasing overall system efficiency across key services.

Innovatus Technologies, India | Software Analyst | Aug 2021- July 2023

- Managed PostgreSQL workflows and improved SQL schema design, increasing data accuracy by 30%.
- Built automated data pipelines using AWS Lambda and AppFlow, reducing manual data efforts by 40%.
- Developed FastAPI microservices that processed and analyzed user, market, and bulk datasets.
- Conducted trend analysis and API performance measurements, improving API efficiency by 20%.
- Implemented validations, QA tests, and data checks that reduced defects and inconsistencies across datasets.
- Assisted in integrating Kafka connectors to support event-driven workflows and improve system data consistency.
- Worked with QA teams to add automated tests, reducing production defects and improving system reliability.

PROJECTS

AI-Powered Portfolio Chatbot | May 2025

- Engineered a full-stack, AI-driven chatbot embedded into my portfolio to autonomously handle real-time queries about my skills, projects, and experience using Node.js backend with REST APIs and React frontend for real-time chatbot integration.
- Leveraged OpenRouter's GPT API with secure environment-based token handling to dynamically serve LLM responses.
- Architected a responsive React + Redux frontend, supporting theme toggling, chat avatars, and real-time keyboard interaction.
- Deployed a stateless Node.js backend via Render, serving static assets and processing JSON-based chat interactions with CORS management and error resilience.

ArtistHub | May 2024

- Developed a feature-rich website integrating E-Commerce, Dashboard, User Registration, and Payment Gateway, ensuring seamless transactions with React and Node.js, integrating e-commerce and payment workflows.
- Optimized server architecture, improving data retrieval speed by 60%, enhancing performance and user experience.
- Strengthened backend stability and scalability through advanced routing and backend function optimization while maintaining high security standards and cross-browser compliant frontend.
- Integrated role-based authentication and secure session management, ensuring data privacy and compliance with best practices.

JSON REST API for User Forums | Sept 2023

- Built a Flask-based REST API with SQLite supporting user authentication, CRUD operations, threaded discussions, and date-based queries, adding robust data validation and modular design to ensure a secure, scalable, and maintainable backend architecture.
- Tested endpoints using Postman and deployed via MLflow to track performance metrics and ensure reliable production rollout.

SKIN Disease Detection Using ML | Aug 2022

- Built a CNN web app for skin disease classification (94% accuracy), deployed with MLflow for reproducibility and versioning.
- Preprocessed large medical image datasets and conducted statistical evaluations of model accuracy.
- Implemented Grad-CAM visualizations with batch normalization + dropout, boosting interpretability and generalization.
- Experimented with transformer LLMs for text classification, benchmarking latency vs throughput on GPU (CUDA).
- Applied quantization and TensorRT optimization, cutting inference time 35% while maintaining high accuracy and reliability.