

JAYAKRISHNA KONDA

[Portfolio](https://www.jay739.dev) (<https://www.jay739.dev>) | LinkedIn ([linkedin.com/in/jaya-krishna-konda](https://www.linkedin.com/in/jaya-krishna-konda))

Baltimore, MD • jayakrishnakonda@jay739.dev • (667)-910-1092

SUMMARY

Technical Data Scientist with 3+ years of experience working across analytics, backend data workflows, and API-driven systems. Experienced in SQL-based data modeling, RESTful integrations, experimentation, and translating ambiguous business requirements into measurable technical outcomes. Exposure to ASP.NET and .NET-based web application fundamentals and enterprise-style system design patterns

TECHNICAL SKILLS

Backend & Application Development: Python (FastAPI, Flask), RESTful API design, integration and validation ASP.NET Core, Node.js

Data & Systems: SQL (MySQL, Oracle, PL/SQL), Data modeling and schema design, ETL pipelines, data validation, migration analysis

Architectures & Integrations: API-based integrations, Microservices fundamentals, Authentication & authorization concepts (JWT, OAuth – conceptual), System design for scalable data workflows

Cloud & DevOps: Docker, Docker Compose, Cloud deployment fundamentals (compute, storage, networking), Linux server administration, CI/CD concepts, DNS, HTTPS, reverse proxy configuration

Observability & Reliability: Logging and metrics collection, performance monitoring, basic alerting, resource usage analysis and tuning

INFRASTRUCTURE, DEPLOYMENT & SYSTEMS EXPERIENCE

Self-Hosted Infrastructure & Containerization (Home Lab)

- Designed and maintained a self-hosted home server environment using Docker and Docker Compose to run multiple services in isolated containers
- Implemented containerized deployments for web services, monitoring tools, and internal applications, focusing on reproducibility and service isolation
- Configured network access, reverse proxying, and secure remote access using Tailscale for private service connectivity
- Managed persistent storage, environment variables, and service restarts to ensure reliability across reboots and updates
- Gained hands-on experience with Linux system administration, service orchestration, and troubleshooting production-like failures

Personal Portfolio Website Deployment (jay739.dev)

- Designed, deployed, and maintained a production portfolio website with custom domain configuration
- Containerized backend services and deployed using cloud-hosted infrastructure
- Implemented repeatable, CI-friendly deployment workflows to support iterative updates and configuration changes
- Configured DNS, HTTPS, and reverse proxy routing for secure public access
- Monitored uptime and performance, applying fixes for deployment and configuration issues
- This site serves as a live production environment for experimentation with deployment, monitoring, and system reliability.

Self-Hosted Observability & Monitoring Stack

- Deployed and managed a self-hosted monitoring stack to track system health, resource usage, and service uptime across multiple containerized applications
- Configured metrics collection, dashboards, and alerts to identify performance regressions and infrastructure bottlenecks
- Used monitoring insights to guide container resource tuning and service restarts, improving system stability and availability
- Exposed selected metrics via a public dashboard for transparency and experimentation

PROFESSIONAL EXPERIENCE

Data Scientist/ Analytics Engineer (AI/ML Intern) at R/SEEK (UMBC)

Jan 2025 - Jun 2025

- Partnered with engineering teams to analyze system-level behavioral and sensor data, identifying architectural bottlenecks and failure patterns that informed redesign decisions
- Designed and executed controlled technical evaluations comparing baseline and updated system components, validating improvements using statistically rigorous methods
- Built Python-based pipelines to analyze error distributions, edge cases, and performance tradeoffs across test scenarios
- Partnered with engineers to translate experimental findings into measurable system improvements
- Created reusable analysis notebooks and reports to support ongoing experimentation and product decisions
- Designed and analyzed controlled experiments to measure the impact of system changes, interpreting results using statistical significance and confidence intervals
- Contributed to integration discussions between perception pipelines and downstream decision systems, translating analytical findings into implementation-ready requirements

Assistant Systems Engineer – Data Analyst | Data Analyst at *Tata Consultancy Services***Mar 2022 - Jun 2023**

- Performed SQL-driven analysis on large-scale enterprise incident datasets, working with structured schemas and upstream/downstream system dependencies
- Designed metric-based investigations to evaluate process changes, contributing to a 30% reduction in customer-reported issues
- Built and maintained Power BI dashboards used by 50+ stakeholders to monitor KPIs and operational health
- Applied anomaly detection and time-series analysis to reduce false alerts by 22%
- Supported analysis related to process changes impacting enterprise data flows and reporting structures
- Collaborated with product, engineering, and operations teams to convert insights into actionable process improvements

Data Analyst Intern | Data Analyst Intern at *Nivahata***Dec 2021 - Jan 2022**

- Analyzed user interaction and engagement data from 50,000+ daily events to identify behavioral patterns and drop-off points
- Built SQL and Python workflows to segment users, evaluate engagement trends, and monitor key metrics
- Developed dashboards to visualize user cohorts, anomalies, and performance metrics, enabling faster product decisions
- Applied NLP techniques to categorize user feedback and support tickets, improving triage speed by 32%

Software Intern | Software Intern at *Infosys***Jan 2019 - May 2019**

- Developed a real-time movie database application using Node.js, MongoDB, and external APIs, improving data refresh speed by **45%**
- Conducted exploratory data analysis on user interaction logs, identifying behavioral patterns that increased feature adoption by **15%**
- Optimized backend query performance, reducing database latency by **28%** and improving overall application responsiveness
- Built automated scripts for data ingestion and validation, reducing manual QA effort by **50%**
- Collaborated with a 5-member engineering team to design scalable API endpoints, increasing system reliability and uptime to **99.5%**

PROJECTS [Link: <https://github.com/jay739?tab=repositories>]

Financial Crisis Analysis Tool

- Implemented FinBERT *sentiment analysis* achieving 87% accuracy on 10,000+ financial news articles
- Executed 1,000+ *Monte Carlo simulations* analyzing portfolio risk with 95% confidence intervals
- Calculated CAPM metrics for 50+ stocks with automated alpha/beta analysis reducing manual effort by 80%

RAG-powered Podcast Generator (Capstone)

- Built AI engine processing 200+ page PDFs with 98% OCR accuracy for character-voiced audio conversion
- Integrated *LLM fine-tuning* support for narrative tone consistency across genres
- Achieved 4x faster processing time using optimized *LangChain* pipeline and local *Ollama* deployment
- Generated multi-voice narration with 90%-character identification accuracy across diverse literary genres
- Deployed and orchestrated multiple pipeline components using containerized services, managing inter-service communication and resource constraints

EDUCATION**UNIVERSITY OF MARYLAND BALTIMORE COUNTY****Aug 2023 - May 2025***Master of Professional Studies; Major in Data Science - **GPA: 3.91/4.00****Baltimore, Maryland**Coursework: Machine Learning, Practical Deep Learning, Big Data Analytics, Data Warehousing and Data Mining***SCREENIDHI INSTITUTE OF SCIENCE & TECHNOLOGY****May 2015 - May 2019***Bachelor of Technology; Major in Computer Science & Engineering - **GPA: 8.82/10.0****Hyderabad, India**Coursework: Data Structures, Database Management Systems, Python Programming, Cloud Computing, Operating System***VOLUNTEER EXPERIENCE****Technical and Design Head at Emerging Computers Arena (ECA SNIST)**

- Created promotional materials, posters, and banners using *Adobe Illustrator* and other visual tools, maintaining a consistent design language
- Delivered a keynote session in the *Tech Series* on “*The Emergence of Data Storage Technologies*,” presenting to an audience of 200+ students and faculty