YASHWANTH REDDY KANTAREDDY

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PROFILE

Software Engineer with 3 years of experience building full-stack web applications, deploying cloud-based solutions, and developing intelligent systems. Proficient in Python, JavaScript, Flask, and Node.js, with hands-on expertise in cloud infrastructure (Azure), RESTful APIs, and Dockerized deployments. Recently designed and deployed a portfolio website featuring an AI-powered chatbot using LangChain, FAISS, and Mistral 7B, hosted on Azure VM with NGINX and HTTPS. Adept at translating complex requirements into scalable, maintainable software systems with a focus on performance and reliability.

EDUCATION

University of Bridgeport | Bridgeport, CT   **Jan 2024 – Dec 2025**
Master of Science in Computer science

St Martin's Engineering College | Hyderabad, India   **Jul 2017 – Sep 2021**
Bachelor in Electronics and Communication Engineering

TECHNOLOGY STACK

- **Languages:** Python, JavaScript
- **Databases:** MySQL, MongoDB
- **Big Data & Cloud:** Hadoop, Kafka, Hive, Spark
- **Cloud**: **Azure** (Event Hubs, Monitoring, Kafka Integration)
- **AI & LLMs:** LangChain, FAISS, Mistral 7B (llama-cpp)
- **Tools:** Docker, Git, Microsoft Visual Studio, VS Code
- **Data Visualization:** Tableau, Power BI
- **Web**: React.js, Node.js, RESTful APIs, HTML, CSS
- **Operating Systems:** Windows, Linux/Unix

PROFESSIONAL EXPERIENCE

Prolifics Corporation Limited.   **Oct 2021 – Dec 2023**
Associate Software Engineer   *Hyderabad, India*
Client – AMC Theatres of USA

- Managed end-to-end data pipelines across production and staging Hadoop clusters, supporting high availability and performance tuning of the **Hadoop** ecosystem.
- Developed and optimized **Spark** batch jobs for data aggregation and transformation, reducing daily job runtimes by 30%.
- Utilized Spark SQL and **Data Frames** for querying large datasets, improving processing speed over legacy Hive scripts.
- Expertise in installing Hadoop Cluster and its related components.
- Configured high availability for Name Node and Resource Manager, ensuring seamless failover and fault tolerance. Managed data purging based on retention policies and monitored cluster health using Ganglia and Nagios for CPU, memory, and storage alerts.
- Expertise on **YARN** Performance Tuning and managing Hadoop Cluster Patching & Upgrades. Responsible for commissioning and decommissioning of nodes from Clusters.
- Conducted Root Cause Analysis (**RCA**) on data pipeline failures, leading to a 30% reduction in downtime and improved system reliability.
- Followed **Agile Scrum** practices to deliver scalable solutions in sprints with iterative feedback.
- Containerized and deployed the internal DTE project using **Docker**, streamlining onboarding and eliminating environment drift across development and QA environments.

BSNL   **May 2021 – Sep 2021**
Intern - Telecom services and network management   *Hyderabad, India*

- Conducted **data analysis** on telecom network performance, identifying and resolving connectivity issues reducing downtime by 15%.
- Supported the setup and maintenance of basic telecom infrastructure, gaining exposure to network operations and compliance procedures.
- Coordinated daily tools and technical materials, improving workflow efficiency and supporting the field team in routine tasks

PROJECTS

Classroom Reservation System (Academic Project)
*Tech Stack: **React.js, Node.js, MySQL, JavaScript, HTML/CSS***

- Developed a complete web application for booking classrooms and labs with separate login flows for users and admins.
- Created backend APIs in Node.js to handle user registration, login, booking requests, and admin approvals or rejections.

- Designed a MySQL database with tables for users, reservations, rooms, and admins, using foreign keys to link data correctly.
- Added features for real-time room availability checking and prevented double-bookings using conflict-checking logic.
- Built dashboards for both users and admins to track and manage reservations with status updates (Pending/Approved/Rejected).
- Displayed logged-in user's name in dashboards and protected sensitive data like SSNs from being shown directly.
- Ensured that users can't book rooms in the past or enter invalid time ranges, improving data accuracy.
- Styled the frontend with custom CSS themes and animations to make the interface more modern and student-friendly.

Portfolio Website with Resume-Based AI Chatbot
Tech Stack: **Flask, LangChain, FAISS, Mistral 7B (llama-cpp), Azure App Service, Azure VM, NGINX, HTTPS, GitHub Actions, HTML/CSS**

- Developed a full-stack portfolio website to showcase education, experience, and live projects with an embedded **AI-powered assistant** for resume-based Q&A.
- Integrated LangChain and FAISS with a locally hosted Mistral 7B model using llama-cpp-python to generate personalized responses based on resume context.
- Deployed the frontend on Azure App Service and the backend on an **Azure Virtual Machine**, reverse proxied via NGINX and secured using HTTPS (Let's Encrypt).
- Designed a floating chatbot widget accessible across all routes, communicating with a Flask-based **REST API** for handling long-running LLM inference.
- Implemented **CI/CD using GitHub Actions** to automate frontend/backend deployment and maintain consistent cloud environment configuration.

Kafka Connectivity with Azure Event Hubs

- Built a real-time telemetry pipeline by integrating **Apache Kafka producers** with **Azure Event Hubs** to simulate cloud-scale IoT data ingestion.
- Streamed synthetic telemetry data from Kafka to Azure, enabling **end-to-end delivery tracking** via Azure Functions and Blob Storage.
- Configured **Kafka Connect** to push messages into Event Hubs securely, demonstrating scalable ingestion with partitioned throughput units.
- Validated event delivery using **Azure Monitor**, ensuring reliable message propagation, latency tracking, and ingestion metrics.
- Optimized the pipeline for **high-throughput performance**, tuning Kafka producer batching, connector workers, and Event Hub partitions.
- Gained practical experience in **event-driven architecture**, real-time messaging, and cloud-native telemetry processing.

CERTIFICATIONS & INVOLVEMENTS

- Programming for Everybody (Getting Started with Python) - Coursera
- Apache Spark Project for Beginners
- Volunteer for Sympoaagyna 2019