HARSHIT TYAGI

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Education

Jaypee Institute of Information Technology, Noida B.Tech in Computer Science Engineering August 2022-May 2026

Work Experience

Software Engineering Intern – Moon Beverages Ltd. | React. is Flask AWS Docker

June - July 2025

- Collaborated with frontend team to build React dashboard for production monitoring, automating categorywise analytics and reducing manual reporting effort.
- Designed RESTful APIs in Flask to integrate backend with frontend, ensuring real-time data consistency.
- Containerized and deployed the solution on AWS EC2 with Docker, enabling scalable and reliable usage.

Projects

NeuroWell: AI-Driven Mental Health Analysis Tool | · ANN · Flask · React.js

- Engineered ANN-based stress prediction model achieving ~85% stress classification accuracy.
- Optimized performance through data preprocessing, feature engineering and hyperparameter tuning.
- Exposed the model via a Flask REST API, facilitating real-time predictions using React.js frontend.

Source Code: https://github.com/tyagi0320/NeuroWell

DocBuddy: Your AI-Powered PDF Companion | · Streamlit · LangChain · FAISS

- Built an LLM-powered assistant for semantic search and Q&A across 100+ page PDFs.
- Implemented a RAG pipeline using text chunking, embeddings, and FAISS for accurate retrieval.
- Integrated LangChain with Gemini Pro to generate context-aware responses.

Source Code: https://github.com/tyagi0320/DocBuddy

TrackSphere: Web Activity Analytics | · Kafka · PostgreSQL · Docker · Grafana

- Developed a Chrome extension capturing and streaming 25+ user interaction events per session securely.
- Architected a real-time Kafka-PostgreSQL pipeline with <300ms ingestion latency for analytics.
- Dockerized and deployed on AWS with NGINX handling SSL, enabling secure HTTPS access.
- Deployed Grafana dashboards to visualize activity trends and insights in real-time.

Source Code: https://github.com/tyagi0320/Web-Activity-Tracker-v2

System Resource Monitor | · Terraform · Docker · GitHub Actions · Grafana/Prometheus

- Automated AWS EC2 provisioning using Terraform and deployed a containerized Node.js application.
- Implemented CI/CD via GitHub Actions, reducing deployment time by ~63% (from ~4 min to ~1.5 min) with automated Docker builds & pushes.
- Configured Grafana dashboards with Prometheus + Node Exporter for real-time monitoring of system metrics (CPU usage, memory utilization etc).

Source Code: https://github.com/tyagi0320/SystemResourceMonitor

Technical Skills

Languages: C++, Python, JavaScript, SQL, Bash

Web Development: Flask, Node.js, React.js, MongoDB, MySQL

Cloud & DevOps: AWS, Terraform (IaC), Docker, Kubernetes, CI/CD, Git, Prometheus, Grafana

AI/ML & Data: TensorFlow, Scikit-learn, Pandas, NumPy, Matplotlib, LangChain

Certifications & Achievements

- AWS Cloud Practitioner Essentials Training
- Web Development Bootcamp, Udemy
- Solved 350+ problems on <u>LeetCode</u> & <u>GeeksforGeeks</u>