SHIVA JYOTI

GitHub | Linkedin | Kaggle| LeetCode | jyotishiva210@gmail.com | +91 8627026538

Third-year B.Tech Computer Science (Data Science) student (CGPA: 9.23/10) with strong foundations in Data Structures, Algorithms, and scalable software systems. Experienced in building full-stack web applications, cloud-native systems, and real-time distributed platforms. Proficient in Java, Python, and JavaScript with hands-on experience in backend development, REST APIs, and AWS cloud services. Passionate about building scalable, production-grade SaaS systems.

RESEARCH & INDUSTRY EXPERIENCE:

Machine Learning Researcher, Springer Conference Publication **Link**

- Published peer-reviewed research on AI-based lung cancer prognosis systems
- Designed a novel Clinical Readiness Score (CRS) framework to evaluate ML models across interpretability, efficiency, clinical validation, and accuracy
- Applied Analytic Hierarchy Process (AHP) for weighted decision modeling and consistency validation
- Evaluated multiple ML/DL models (CNNs, RNNs, Random Forest, SVM) using real-world medical datasets (LIDC-IDRI, TCGA)
- Performed data preprocessing, feature engineering, and model comparison with metrics like AUC, F1-score, sensitivity, and specificity

PROJECTS:

BookShelf — Social AI-Powered Book Platform GitHub | Live Demo

- Built a full-stack social reading platform using **Next.js (TypeScript)** and **FastAPI**
- Designed scalable backend with **PostgreSQL + pgvector** for hybrid recommendation system
- Implemented **JWT authentication via Supabase** with secure session handling
- Developed **real-time chat system using WebSockets**
- Integrated **Open Library APIs** for dynamic book catalog (no hardcoded data)
- Built personalized feed combining **recommendations, social activity, and trending content**
- Implemented social features: **reviews, ratings, follow system, user profiles**
- Optimized frontend performance using **Zustand state management and Axios interceptors**

LifeMemory AI — AI-Powered Personal Memory System GitHub | Live Demo

- Developed a privacy-first journaling platform with AI-powered memory retrieval and insights
- Built backend using FastAPI (async) with PostgreSQL and pgvector for semantic search
- Designed RAG-based system combining vector similarity, temporal filtering, and metadata-aware retrieval
- Implemented LangGraph multi-step reasoning pipeline (intent classification → retrieval → synthesis)
- Integrated Supabase Auth with JWT and Row-Level Security (RLS) for strict user data isolation
- Enabled evidence-grounded AI responses based solely on user journal entries
- Deployed production-ready system with Docker, logging, and monitoring

CloudCollab — Cloud-Native Real-Time Collaborative Coding Platform

- Designed and deployed a real-time collaborative coding platform on AWS with chat, video calls, and code editing
- Built backend using Node.js, Express, and Socket.IO for low-latency real-time communication
- Architected a 3-tier cloud system (frontend, backend, database) ensuring scalability and modularity
- Deployed frontend on AWS S3 + CloudFront CDN for global low-latency delivery
- Hosted backend on AWS Elastic Beanstalk with auto-scaling and load balancing
- Designed NoSQL schema using DynamoDB with GSI/LSI indexing for efficient queries
- Implemented JWT-based authentication and role-based access control (RBAC)
- Integrated WebRTC video conferencing and collaborative code editor

- Enabled multi-language code execution using external APIs
- Monitored performance using AWS CloudWatch

LEADERSHIP & COMMUNITY:

Financial Lead, ACM-W ***July 2025 – Present***

- Led technical workshops, coding sessions, and 4 large-scale hackathons (250–300+ participants each).
- Managed operations and budget for 400+ participants
- Coordinated with sponsors and cross-functional teams

TECHNICAL SKILLS:

Languages: Java, Python, C++, JavaScript, SQL
Web & Backend: React, Next.js, Node.js, Express, FastAPI, REST APIs, WebSockets
Databases: PostgreSQL, MySQL, MongoDB, DynamoDB
Cloud & DevOps: AWS (S3, CloudFront, Elastic Beanstalk, DynamoDB), Supabase, Docker (basic)
Core Concepts: Data Structures & Algorithms, OOP, DBMS, Distributed Systems, SDLC
Tools: Git, GitHub, Axios

EDUCATION:

Vellore Institute of Technology, Chennai **August 2023 - Present**

- Bachelor of Technology in Computer Science with a specialization in Data Science

Pratap World School **May 2020 – June 2022**

- 2022 | 95.6%