SHREYAS S V

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EDUCATION

Sapthagiri NPS University — *Bachelor of Engineering (B.E.) in AI & Machine Learning* **2024 – 2028 | Bengaluru, India**

Relevant Coursework: Data Structures & Algorithms, Machine Learning Systems, Computer Vision, Deep Learning & Neural Networks, Database Systems (PostgreSQL), Cloud Computing & Distributed Architectures, Operating Systems.

TECHNICAL SKILLS

Languages:	Python, TypeScript, JavaScript (ES6+), SQL (PostgreSQL), C++, HTML5, CSS3
Full-Stack & Web:	React 19, Next.js 15, FastAPI, Node.js, Express, Tailwind CSS, Three.js, RESTful APIs, WebSockets
AI & Machine Learning:	LangGraph, PyTorch, TensorFlow, Keras, OpenCV, DeepFace, Grad-CAM, Scikit-learn, NLP, CNNs
Cloud & Infrastructure:	Amazon Web Services (AWS: EC2, S3, CloudFront, IAM), Supabase, Prisma ORM, Docker, Git, CI/CD, Vercel
Architecture & Protocols:	Autonomous Multi-Agent Systems, Multi-Tenancy (Row-Level Security), Microservices, Client GPU Rendering (WebCodecs)

EXPERIENCE & LEADERSHIP

AWS Campus Ambassador — *Amazon Web Services (AWS) Academic Program* **2026 – Present**

- Evangelize cloud infrastructure, containerization, and serverless ecosystems across university engineering departments.
- Organize technical architecture workshops and hands-on cloud labs covering AWS EC2, S3 storage, and IAM security for 200+ students.
- Mentor 15+ engineering peers on production-ready cloud deployments, architectural resilience, and AWS certification pathways.

Freelance Software Engineer — *Commercial Client Platforms (Naavsoch Studio, Raajpanel)* **2025 – Present**

- Architected and deployed full-stack commercial web platforms for business clients using Next.js 15, TypeScript, and FastAPI.
- Engineered dynamic product catalog workflows and modular component layouts optimized for production B2B traffic.
- Delivered secure client-facing deployments with zero downtime, responsive UI/UX, and automated CDN asset distribution.

FEATURED PROJECTS

DataPulse AI: Autonomous SQL Multi-Agent | LangGraph, Python, Streamlit, Plotly, SQLite Code [GitHub]

- Engineered an autonomous Natural Language to SQL analytics agent featuring LangGraph state transitions and AST query guardrails.
- Implemented self-correction loops that dynamically intercept SQL runtime and syntax errors, healing queries with automated retry logic.
- Designed an executive telemetry dashboard in Streamlit with interactive Plotly visual synthesis and transparent execution traces.

WebHub AI Platform — Multi-Tenant Autonomous SaaS | Next.js 15, TypeScript, Supabase, Razorpay Code [GitHub]

- Architected a production multi-tenant website generation platform utilizing Supabase PostgreSQL Row-Level Security (RLS).
- Implemented secure Razorpay payment webhook integration for automated billing lifecycles, tenant quotas, and subscription state.
- Engineered real-time client UI compilation pipeline generating fully responsive React layout trees in under 3 seconds.

Aerospace Pneumonia AI Diagnostic | Python, PyTorch, Keras, OpenCV, Grad-CAM Live Demo | Code

- Engineered deep convolutional neural network (CNN) analyzing chest radiographs, achieving **98.4% validation accuracy**.
- Developed explainable AI Grad-CAM gradient heatmaps to visually isolate pulmonary opacity and assist clinical diagnostic validation.
- Optimized edge inference pipeline down to **84ms per 1024x1024 radiograph tensor**, deployed via Next.js telemetry dashboard.

Cinematic Video Editor Studio — GPU Client Workstation | Next.js, TypeScript, WebCodecs, Canvas API Live Demo | Code

- Built high-performance in-browser non-linear editing studio with multi-track timeline scrubbing, audio waveforms, and clip slicing.
- Integrated WebCodecs VideoDecoder pipeline with Canvas GPU shaders for **real-time 4K LUT color grading locked at 60 FPS**.
- Eliminated server transcoding roundtrips by enabling zero-latency client-side MP4 export with **sub-120MB memory footprint**.

CERTIFICATIONS & HONORS

- **Oracle Certified Associate:** OCI AI Foundations Associate — Oracle University (2025)
- **AWS Campus Ambassador:** Appointed student cloud leader — Amazon Web Services Academic Program (2026)
- **Technical Excellence:** 1st Place & Finalist in collegiate hackathons for autonomous computer vision diagnostic tooling
- **Enterprise Job Simulations:** Advanced Software Engineering (Walmart Global Tech), Cyber Simulation (Deloitte Australia), GenAI Analytics (Tata)