Vedaang Sharma

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https://github.com/gtathelegend

Summary

Full Stack Developer specializing in AI-driven and distributed systems, with hands-on experience building scalable web applications, multi-agent LLM pipelines, and blockchain-based platforms. Proficient in MERN, Python, and cloud-native architectures, with strong expertise in real-time systems, API design, and database engineering. Experienced in developing intelligent applications using LLMs, computer vision, and decentralized technologies. Focused on designing production-ready systems with clean architecture, performance optimization, and practical real-world impact.

Education

Vivekananda Global University, Jaipur, BCA in Cloud Computing and Full Stack 2024 - 2027

- GPA: 9.8/10 (Vivekananda Global University)
- **Coursework:**
  Core CS: Data Structures, DBMS, OS, Computer Architecture
  Programming: Java, Python
  Development: Web Dev (HTML/CSS/JS), Linux, OOP
  Other: AI Basics, Software Engineering

Rawat Public School, Jaipur, 12th Grade (CBSE) 2023 - 2024

- Percentage : 80 (Rawat Public School)
- **Coursework:** Physics, Chemistry, Mathematics, Informatics Practices (Python, SQL, Data Handling)

Projects

Aegis Care – Decentralized Healthcare Data Management

- Built a blockchain-based healthcare platform on Algorand with 9 smart contracts implementing RBAC, medical records, prescriptions, and consent-driven access control.
- Designed hybrid IPFS + blockchain storage, securing encrypted medical records off-chain (CID) while enforcing access control on-chain.
- Implemented ARC-28 compliant audit logging to track consent, data access, and erasure events across system actors.
- Developed a TypeScript deployment orchestrator with cross-contract transactions and multi-network support.
- **GitHub:** https://github.com/gtathelegend/Aegis-Care
- **Live Demo:** https://aegis-care.vedaangsharma.dev
- Tech: Algorand, Python (Puya), TEAL, IPFS, TypeScript, Node.js, AlgoKit

PostureSense – AI Posture Detection System

- Developed a real-time posture analysis system using MediaPipe and OpenCV with 33 landmark tracking.
- Implemented pose classification using trigonometric joint angle calculations.
- Built a Flask backend with MJPEG video streaming and SSE for real-time feedback.
- Designed authentication with Flask-Login and bcrypt, storing session analytics in PostgreSQL (Supabase).
- **GitHub:** https://github.com/gtathelegend/Posture-Sense
- **Live Demo:** https://posture-sense.vedaangsharma.dev/
- Tech: Python, Flask, MediaPipe, OpenCV, Supabase, PostgreSQL

KIDZ-GPT – AI Learning Companion for Kids

- Built a multi-agent AI tutoring system using local LLMs (Ollama 120B).
- Enabled multilingual voice interaction using Whisper with real-time language detection.

- Developed interactive learning using 3D animated characters with Three.js.
- Integrated Redis caching, AI quizzes, and visual learning components.
- **GitHub:** https://github.com/gtathelegend/KIDZ-GPT
- Tech: FastAPI, React, TypeScript, Three.js, Whisper, Ollama, Redis

Campus Swap – Student Marketplace App

- Built a full-stack Flutter marketplace app enabling students to buy and sell second-hand goods within campus.
- Implemented OTP-based authentication with student ID verification and multi-image product listings.
- Developed a real-time chat system using Supabase Realtime (WebSockets) with push notifications.
- Architected using Provider state management and service-layer pattern with Supabase backend.
- **GitHub:** https://github.com/gtathelegend/Campus-Swap
- **Live Demo:** https://campus-swap.vedaangsharma.dev/
- Tech: Flutter, Supabase, PostgreSQL, WebSockets

Experience

Full Stack Development Intern - On-Site, PetsGo & PetsDoor Pvt. Ltd. Nov 2025 – Jan 2026

- Developed and enhanced full-stack web application features for the PetsGO pet-care platform.
- Collaborated with tech and design teams on front-end, back-end, API integration, and database tasks.
- Improved user interface components and participated in code reviews, testing, and deployment.
- Gained hands-on experience across the full web development life cycle under guidance from senior mentors.

Certifications

Engineer AI Agents with Agent Development Kit (ADK) - Google Cloud April 2026

- Built intelligent AI agents with workflow orchestration, API/tool integration, and context-aware decision-making for real-world automation tasks.
- Designed agent pipelines capable of handling dynamic inputs and executing multi-step reasoning processes.
- **View Certification**

Introduction to LangChain - Python - LangChain Academy April 2026

- Developed LLM-powered applications using tools, memory, and multimodal inputs with LangChain.
- Implemented multi-agent workflows and explored production concepts like middleware and human-in-the-loop (HITL).
- Built projects including a Personal Chef, Wedding Planner, and Email Assistant.
- **View Certification**

Full Stack Developer – MERN Stack Master's Program - Simplilearn February 2026

- Developed end-to-end web applications using MongoDB, Express.js, React.js, and Node.js, implementing responsive UI, RESTful APIs, authentication, and scalable backend services.
- Applied cloud deployment, DevOps practices, Git-based collaboration, testing, Agile workflows, and integrated AI features using OpenAI APIs across industry projects.
- **View Certification**

DevOps Foundations: Continuous Delivery/Continuous Integration - LinkedIn Learning February 2026

- Implemented CI/CD pipelines to automate build, test, and deployment workflows, improving release speed and reliability.
- Gained hands-on experience with version control, automated testing, deployment strategies, and DevOps collaboration practices.
- **View Certification**

Network Security - Cisco Learning and Certifications (Coursera) January 2026

- Learned network security fundamentals including threat detection, risk mitigation, encryption, firewalls, authentication, and secure architecture design.
- Applied security best practices for protecting enterprise systems, managing vulnerabilities, and implementing access control and incident response strategies.
- **View Certification**

MERN Essential Training - LinkedIn Learning September 2025

- Learned fundamentals of the MERN stack (MongoDB, Express.js, React.js, Node.js) for building full stack, data-driven web applications.
- Developed skills in RESTful API integration, backend services, frontend components, state management, and end-to-end application architecture.
- **View Certification**

EXIN Cloud Computing Foundation - EXIN December 2025

- Gained foundational knowledge of cloud computing concepts including IaaS, PaaS, SaaS, virtualization, scalability, and distributed systems architecture.
- Learned cloud security, governance, cost optimization, deployment models (public/private/hybrid), and best practices for designing reliable cloud-native solutions.
- **View Certification**

Publications

A non-intrusive adaptive learning system using real-time cognitive load estimation: a rule-based CLSI approach May 2026

Published in the Journal of Electrical Systems and Information Technology (Springer Nature). Developed a non-intrusive adaptive learning framework using the Cognitive Load Stability Index (CLSI) to estimate learner cognitive load in real time through behavioral interaction data such as response time, accuracy, retries, and help usage. The proposed system achieved approximately 30% improvement in learning accuracy and 40% increase in learner engagement through dynamic difficulty adaptation and personalized support mechanisms.
DOI: 10.1186/s43067-026-00358-6

Posture Sense: AI-Powered Smart Mirror for Real-Time Exercise Feedback and Posture Correction December 2025

Published as a research paper on SSRN. Developed an AI-powered smart mirror system for real-time exercise posture analysis and correction using MediaPipe BlazePose, TensorFlow Lite, and computer vision techniques. Designed a multi-stage biomechanical analysis pipeline capable of 33-point pose estimation, joint angle computation, exercise phase detection, and rule-based form correction with visual, textual, and auditory feedback. The system achieved up to 96.2% pose detection accuracy and demonstrated a 42.7% reduction in critical exercise form errors during user studies, improving exercise safety, posture accuracy, and overall workout effectiveness on consumer-grade hardware.
DOI: 10.2139/ssrn.5708522

Technologies

Languages: Python, JavaScript, TypeScript, Dart, SQL

Frontend: React, Flutter, Tailwind CSS, Bootstrap

Backend & APIs: Node.js, Express.js, FastAPI, Flask, REST API Design

Databases & Storage: PostgreSQL, MongoDB, Redis, DynamoDB, IPFS

Cloud & DevOps: AWS, Azure, Docker, Kubernetes, CI/CD Pipelines, Git

AI & Systems: LLM Integration (OpenAI, Ollama), Multi-Agent Systems, Computer Vision (MediaPipe, OpenCV), System Design