Krishay Shah

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EDUCATION

GSFC University Vadodara, Gujarat
Bachelor of Technology in Computer Science (AI/ML Specialization) | *CGPA: 7.64* *Expected May 2028*
Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Database Management, Artificial Intelligence

ACHIEVEMENTS

1st National Rank – ELCIA Next-Gen Innovative Tech Hackathon 2026; held at IIIT Bangalore, Bengaluru
Top 20 – TetraTHON 2026, Indo-French AI Innovation Sprint

CERTIFICATIONS

Oracle Cloud Infrastructure 2025 Certified Data Science Professional Oct. 2025
TIDES Ignition Program 2026 | *IIT Roorkee* Jan. 2026
Innovation Ambassador | *MoE's Innovation Cell* Feb. 2026
Drone Technology and Application | *Garuda Aerospace* Jun. 2025
Cloud Foundations | *Amazon Web Services* Jul. 2025

RELEVANT EXPERIENCE

GUIITAR Council Vadodara, Gujarat
Technical Associate (Part-Time) | GSFC University *Oct. 2026 – Present*

- Provide technical guidance to students and startups on prototype and proof-of-concept (PoC) development using engineering software, equipment, and laboratory resources.
- Support prototyping, lab operations, and hands-on demonstrations across the Maker Lab, Tinkering Lab, and Advanced Drone Lab.

AeroRaven Vadodara, Gujarat
Project Team Lead | SSIP-Funded Project, GSFC University *May 2025 – Present*

- Performed computational simulations and structural analysis, projecting a 10% improvement in flight efficiency and a 1.5 km increase in range.
- Optimized material selection and chassis design for a projected 20% weight reduction while maintaining structural integrity.
- Secured and managed an INR 1.64 lakh SSIP grant for materials and electronics supporting modular UAV development.

PROJECTS

Hydro-Vision-3D | *Python, YOLO, PyTorch, FastAPI, React, Depth Anything V2* 2026 – Present

- Developed an AI-powered 3D Ground Control Station for detecting and tracking road and drainage hazards in drone video.
- Integrated YOLOv8m, ByteTrack, and Depth Anything V2 for detection, multi-object tracking, relative-depth analysis, severity scoring, GPS projection, and live visualization.
- Evaluated on 8,063 images with 22,099 annotations, achieving 0.734 precision, 0.640 recall, and 0.646 mAP@50.

Ultron AI | *Python, NATS, Ollama, Docker, MediaPipe, React, WebGPU* 2026 – Present

- Built an event-driven AI agent using NATS microservices, local Ollama reasoning, voice interaction, SQLite memory, and asynchronous system actions.
- Developed a React, Three.js, and WebGPU interface with GPU-accelerated visuals synchronized to agent states.
- Integrated MediaPipe hand tracking and audio perception with the agent's reasoning and action pipeline through NATS events.

InvoiceGuard AI | *Python, FastAPI, React, Gemini Vision, SQLite, Docker* 2026

- Developed an AI-assisted invoice auditing platform for document extraction, vendor validation, duplicate detection, and financial risk assessment.
- Implemented invoice-to-ledger matching, GST validation, fuzzy vendor matching, and 12+ risk rules for a weighted 0–100 risk score.
- Contributed to backend, frontend, database, AI processing, and Docker deployment within a four-member team.

FinLens AI | *Python, Scikit-Learn, SHAP, FastAPI, Streamlit* 2026

- Developed a financial-readiness assessment tool using Random Forest, SHAP explanations, and a 0–100 readiness index.
- Built a what-if simulator and risk gate to examine the impact of behavioral changes on readiness projections.

Meshmerise | *C++, Arduino IDE, Control Algorithms* 2025

- Implemented C++ control logic for an autonomous line-following maze solver using RLS08 sensors and state-based navigation.
- Developed feedback-based steering and dynamic routing using real-time sensor data.

RESEARCH & PUBLICATIONS

The Infinite Mirror: A Midnight Journey Through the Science of the Rann Jan. 2026
Science View Magazine – 14th Edition, GSFC University

- **Second Prize – Best Article** at GSFC University for this published science-based article.

Whispers in the Cortex: How Smart Biomaterials Outsmart the Brain's Defenses July 2026
Science View Magazine – 15th Edition, GSFC University

- Authored a science-based article on neuro-mimetic biomaterials, conductive hydrogels, neural interfaces, and approaches to reducing immune responses to bioelectronic implants.

TECHNICAL SKILLS

Languages: Python, C++, SQL
AI, ML & Computer Vision: PyTorch, TensorFlow, Scikit-Learn, YOLO, OpenCV, MediaPipe, Depth Anything V2
Backend & Systems: FastAPI, NATS, Docker, Ollama, SQLite, ChromaDB, WebSockets, Microservices
Data & Scientific Computing: NumPy, Pandas, Matplotlib
Developer & Engineering Tools: Git, GitHub, VS Code, PyCharm, LaTeX, Arduino IDE, Fusion 360
Frontend & Graphics: React, Three.js, WebGPU, TSL
Core Concepts: Data Structures & Algorithms, Object-Oriented Programming, Event-Driven Architecture, 3D Perception

LEADERSHIP & CAMPUS INVOLVEMENT

Entrepreneurship Club Vadodara, Gujarat
President | GSFC University *Aug. 2025 – Aug. 2026*

- Led club operations and strategy, growing active membership to 70+ students.
- Coordinated a cross-functional team to deliver 8+ technical and business workshops and managed an INR 25,000 annual budget.

AWS Student Builder Group Vadodara, Gujarat
Treasurer | GSFC University *Jul. 2026 – Present*