

Labish Bardiya

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Experience

STRIDE Lab, AI Institute of South Carolina

Jul 2025 – Sep 2025

AI Research Intern

Remote

- Developed a causal-MARL framework combining Structural Causal Models and counterfactual reasoning to analyze decentralized credit assignment, non-stationarity, and partial observability in cooperative decision systems.
- Reformulated kHealth asthma data as a Dynamic Treatment Regime with decision epochs, longitudinal histories, causal assumptions, propensity diagnostics, policy learning, and off-policy evaluation for personalized care pathways.

Maker Bhavan Foundation, IIT Gandhinagar

May 2025 – Jul 2025

Inventor in Residency

Gandhinagar, India

- Designed and sewed a wearable integrating sEMG, earlobe HR, audio, and Bluetooth for sleep-bruxism monitoring.
- Developed thresholding logic that fuses EMG, heart-rate, and acoustic signals into overnight severity reports.
- Co-authored patent documentation and pitched at InventX'25 IITGN, winning the Special Jury Award (₹50K); India and the U.S. provisional filing for 'Wearable System and Method for Monitoring and Assessment of Sleep Bruxism'.

HackJKLU, JKLU

Dec 2024 – Mar 2025

Lead Frontend Engineer

Jaipur, India

- Led a 10-member team to ship a Next.js/TypeScript event platform serving 600+ participants and online presence.
- Implemented server-side team registration with validation and Google Sheets capture, alongside responsive React UI, image optimization, and SEO resulting in 90+ Lighthouse score, alongside managing Event Logistics and Operations.

Projects

Bruxlix | Python, Signal Processing, Embedded Systems, sEMG, PPG/HRV, Audio Sensing, Bluetooth



- Developed a Python bruxism event detector using EMG bursts, sleep gating, HR deltas, and motion-quality filtering.
- Built an 8-subject, 14-night synthetic harness reporting PPV, sensitivity, specificity, RMMA correlation, and stability.
- Prototyped a PyQt interface for sensor data, report/evaluation controls, and clinician-facing safety guidance review.

CureNet | Flutter, Dart, Node.js, FHIR R4, Ollama, Groq, AES-GCM, RSA-OAEP, X25519



- Converted prescriptions and lab reports into FHIR R4 records through local-first LLM inference with cloud fallbacks.
- Implemented AES-256-GCM encryption and RSA-OAEP/X25519 exchange for consent-led health-record sharing.
- Enabled multilingual voice/chat access for medication, lab, and longitudinal health-record queries.

LeverageAI | Next.js, TypeScript, React, XState, LLM Workflows, HMAC



- Built AI workflows that transform text, voice, and PDFs into structured negotiation briefs across four verticals.
- Orchestrated 3 counterparty agents with server-side quote validation; passed 18/18 checks and 20 reliability cases.
- Added XState confirmation gates and stateful negotiation flows to preserve user intent before agent execution.

Education

JK Lakshmipat University

2023 – 2027

Bachelor of Technology, Computer Science

Jaipur, India

Indian Institute of Technology Gandhinagar

Aug 2024 – Dec 2024

Visiting Scholar, Computer Science

Gandhinagar, India

Awards and Activities

Recognition: 3× Hackathon Wins (₹70K+), Special Jury Award InventX'25 IIT GN, 1st Place SDG Innovation Challenge MUJ, Selected as ISWDP Fellow (Org. IISc, SSIR & Synopsys), ISRO Startup Immersion IIIT-H (1 of 16), IET Sch. Regionalist.

Academic: 100% Scholarship (4 years), Dean's Honours List (3×), Rank 1 Practice School I (B.Tech Batch'23).

Activities: Lead Frontend Engineer HackJKLU'25 (600+), CP Club Manager (120+), Hosted and managed multiple event.

Technical Skills

Languages & AI: Python (NumPy, pandas, scikit-learn), TypeScript, JavaScript, Dart, C++, SQL; Agentic AI, RAG, Causal AI, Reinforcement Learning

Product & Data: React, Next.js, Node.js, Flutter, FastAPI, MongoDB, PostgreSQL, Redis, REST APIs, WebSockets

Systems: System Design, Distributed Systems, Docker, Kubernetes, AWS/GCP, CI/CD, Testing & LLM Evals, Inference, Observability, API Security