

Ashmeet Singh Sandhu

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EDUCATION

Indian Institute of Information Technology Una

B.Tech in Computer Science and Engineering, CGPA: 8.87

India

2024 – 2028

Sri Gururam Rai Public School, Sri Ganganagar

Senior Secondary

India

2023 – 2024

EXPERIENCE

AI Agent Development Intern

May 2026 – Present

QueueBuster

India

- Built rule-based fraud detection on qb-helix (QueueBuster's B2B/B2C platform) using Go microservices and ClickHouse over PoS, payments, and settlement data—10-archetype taxonomy, SQL pipelines, and automated alerting.
- Shipped fraud signals end-to-end on a production transactional database processing 100,000+ daily merchant transactions, with composite scoring, RBAC-protected REST APIs, and live validation on hosted infrastructure.
- Built an ML challenger layer (Isolation Forest / autoencoder) for real-time fraud scoring, achieving < 500ms p95 latency, AUC ≥ 0.75 , and $\leq 1\%$ FPR.
- Collaborated with credit-risk and platform teams on investigator workflows (signal $\rightarrow$ case $\rightarrow$ triage $\rightarrow$ resolution) across 5+ countries' merchant data, shipping 15+ production PRs and DB migrations.

Research Intern

Dec 2025 – May 2026

IIT Mandi

India

- Replaced a heavy LLM with a compact SLM + ECG-ViT encoder and built an end-to-end training/inference/evaluation pipeline, achieving 68.26 macro-AUC on PTB-XL SUB classification.
- Preserved clinical report-generation quality after model compression, maintaining ROUGE-L 5.99% while enabling a more efficient and deployable pipeline.
- Built dataset loaders and collators for report generation, ECG localization, and multi-ECG QA across 20,000+ samples, with dynamic path resolution, padding fixes, seed control, gradient checkpointing, and auto-resume.
- Extended evaluation to ECG localization and open-ended ECG-QA, achieving 0.71 IoU and 64% exact-match accuracy, validating real-world QA and localization performance.

PROJECTS

MediNodus – Medical AI | *FastAPI, MongoDB, MedGemma, LangChain, Docker* | [GitHub](#) Dec 2025 – Jan 2026

- Engineered a privacy-first AI medical assistant using a 4B-parameter vision-language model with 4-bit quantization, enabling 100% local processing with zero external LLM API calls.
- Built a diagnostic pipeline that parses medical images, extracts lab values, and generates 2,000-token patient-friendly summaries.
- Developed a real-time drug safety system that cross-references scanned medicine images with the OpenFDA database to flag high-severity drug-condition interactions.

FlashPoint - Real-Time Intelligence Platform | *FastAPI, Qdrant, LangChain, PostgreSQL* | [GitHub](#) Jan 2026

- Architected a distributed pipeline using Celery workers and Redis to aggregate and deduplicate streaming data from 50+ sources into a PostgreSQL and TimescaleDB warehouse.
- Orchestrated a Live RAG system with LangChain and a Qdrant vector database, using SentenceTransformers to ground LLM chat responses in real-time events.
- Implemented an asynchronous SSE streaming dashboard in vanilla JavaScript, featuring live interactive maps, spaCy NER analysis, and automated Gemini PDF reports.

Emergency Triage Risk Stratification (Research) | *Python, XGBoost, LightGBM, ClinicalBERT* | [Demo](#) April 2026

- Built a multimodal ensemble to stratify 58,000+ NHAMCS patient records into 3 risk tiers.
- Engineered an ordinal-aware meta-learner pipeline combining physiological tabular data with NLP embeddings.
- Achieved 0.65 Urgent-class recall to reduce undertriage, using SHAP and LIME to validate clinical explainability.

TECHNICAL SKILLS

Languages: Python, C++, C, SQL, HTML, CSS, JavaScript, Golang, JAX

Frameworks: NumPy, Pandas, Scikit-Learn, PyTorch, FastAPI, Flask, React, LangChain, LangGraph, REST APIs, CI/CD, Kubernetes, Apache Kafka, PostgreSQL, ClickHouse, Jenkins

Tools: Docker, MongoDB, MySQL, GitHub, Linux, Excel, PowerPoint, Canva, LaTeX, Valgrind, Wireshark, AWS

Achievements: CodeChef 4-Star, Codeforces Specialist (1530), 1000+ Problems, AIR 720 ICPC, TechOlympics 2025 Global Rank 11 (India Rank 1), Participated in 4+ Hackathons, Authorized Research Paper Discussion Sessions