

Aryaman Raj Jaiswal

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EDUCATION

Netaji Subhas University of Technology

Bachelor of Technology in Electronics and Communications

Dwarka, Delhi

Aug. 2024 – Present

EXPERIENCE

Bharti Airtel Limited

Software Engineer Intern

June 2026 – Present

Gurugram, India

- Re-architected an internal **OpenStack** platform tracking live and historical state across a distributed VM fleet; cut dashboard query latency by **30%** via **database migration**, **composite indexing**, and **cursor-based pagination**.
- Designed a guardrailed natural-language interface over the VM database using local **Ollama LLMs (LangChain)**, **NeMo Guardrails** input/output rails, and a read-only **text-to-SQL** agent, plus an **AI surge-analysis** layer that flags anomalous provisioning spikes and summarizes root causes.

SmartOut Media (Canada)

iOS Developer (Contract)

Jan. 2026 – Present

Remote

- Built the **SmartOut** iOS app from the ground up in **Swift/SwiftUI (50K+ installs)** — an offline-first geospatial platform for Ontario hunting and fishing regulations — over a bundled **SQLite** dataset and a migratable **GRDB** store, instrumented with **GA4** analytics and **Crashlytics**.
- Engineered the map layer with **Google Maps SDK** and **GEOSwift**: **456 regulatory polygons** with MULTIPOLYGON and interior-hole support, distance-based marker clustering, polygon hit-testing, and deep links that restore the exact zone, tab, and regulation row across app launches.

Examination Cell, NSUT

Software Developer Intern

May 2025 – Aug. 2025

Delhi, India

- Architected a **Next.js/Flask** automation platform serving **10,000+ students**, cutting manual data entry by **70%** with **Pandas-driven constraint solvers** for invigilator assignment and room allocation.
- Shipped **NSUTrack**, native **Android and iOS** clients centralizing schedules, attendance, and society notices for **1,500+ students**, with an offline-first cache refreshed by **WorkManager** sync and **FCM** push.

ACHIEVEMENTS

- Apple Swift Student Challenge Winner (2026)**: Selected among the top global student developers for **Saldo**, an on-device personal finance iOS app (**SwiftUI**, **Vision**, **Core ML**, **on-device LLM**) that runs receipt parsing and spend intelligence entirely offline.
- Winner, MLH Brainwave 2.0 (DTU)**: Led Team Aquacult to **1st place over 200+ teams**, sweeping **Best Overall Project**, **Best Use of Gemini**, and **Best UI/UX Runner-Up**.
- 2x Winner, HackonHills (2024, 2025)**: Back-to-back **1st-place** finishes among **125+ teams**, building **Aqua-Sense** (AI/IoT) and **HimYatra** (Mobile/Web) end to end.

PROJECTS

Wandr | Swift, Foundation Models, App Intents, Google Places/Routes API, Supabase Realtime, Cloudflare Durable Objects 2026

- Engineered a **zero-hallucination on-device planning pipeline** turning group-chat chaos into a locked multi-stop itinerary: a **Siri App Intent** feeds a structured summary into a **seven-stage coordinator** (extract → normalize → research → resolve → curate → validate → schedule), where **Foundation Models** only rank pre-vetted venues and deterministic Swift alone may mint a plan; chat text is never persisted.
- Designed a **constraint-ladder resolver** that relaxes the least critical rule first (setting → budget → time → stops) while **never relaxing dietary or accessibility**, so planning cannot dead-end; every value is tagged **host-stated** / **model-suggested** / **safe-default**.
- Built **hybrid retrieval** over live **Google Places + Routes** APIs behind a swappable **VenueResearching** protocol, plus **live multiplayer voting** at sub-second consistency on **Supabase Realtime + Cloudflare Durable Objects** — join-code/QR sessions, broadcast tallies, and **quorum locking** under host authority.

AquaSense | Swift, Kotlin, Flask, LangChain, Random Forest, Computer Vision, Gemini, Twilio

Jan. 2026

- Engineered a hybrid **Random Forest + Gemini** pipeline that grounds every LLM claim in classifier output, eliminating hallucinated water-toxicity verdicts; served from a stateless **Flask REST API** to native **SwiftUI** and **Kotlin** clients.
- Built a **multi-agent LangChain** layer of three routable specialists: a **health agent** over live telemetry, a **disease agent** running **computer-vision** diagnosis on fish images, and a **marketplace agent** turning any flagged condition into a curated **in-app cart**.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, Go, SQL (PostgreSQL), JavaScript, Kotlin, Swift, Dart, HTML/CSS

CS Fundamentals: Data Structures & Algorithms, OOP, System Design, Distributed Systems, REST APIs, Database Design

Frameworks: SwiftUI, UIKit, Swift Concurrency, App Intents, Jetpack Compose, React, Node.js, Flask, FastAPI, Next.js

AI / ML: Foundation Models (on-device), LangChain, Ollama, NeMo Guardrails, RAG, Text-to-SQL, Core ML, Gemini

Cloud & Tools: OpenStack, Docker, SQLite/GRDB, Google Maps SDK, GEOSwift, Supabase, Cloudflare Durable Objects, Firebase, Git, Xcode