JONEY

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Summary

Software engineer with **SDE internship experience** building backend and full-stack systems in TypeScript and Node.js. **Shipped a production AI feature** end to end and is a **merged contributor to Collabora Online** (C++).

Experience

Avataar Skincare May 2026 – August 2026
SDE Intern *Delhi, India*

- Independently built and **shipped the AI Hair Analyzer** on avataarskin.com (Next.js, React, TypeScript, NestJS), integrating AI analysis, PDF report generation and CRM lead capture; **39 reported leads** since June 2026.
- Adapted the company's **asynchronous job architecture** into a NestJS module (4 REST endpoints, BullMQ/Redis): uploads return a job ID immediately while a worker runs the analysis with retries and backoff.
- Built a **quality-gated camera capture** flow in React with MediaPipe Face Mesh, validating every frame for framing, lighting and stillness and auto-capturing only when quality checks pass.
- Engineered the six-image **Gemini 2.5 Flash** analysis: it validates the hairline photo first, retakes only that image when needed, and returns scores for 10 concerns as structured JSON.

Netaji Subhas University of Technology June 2025 – July 2025
Research Intern – AI/ML & IoT *Delhi, India*

- Built a **fully offline voice pipeline** in Python for a Raspberry Pi 4 smart-eyewear prototype, chaining wake-word detection, quantized Whisper, embedding-based intent classification and Piper TTS into device actions.

Open Source

Collabora Online September 2026
Merged Contributor – C++ Writer engine Gerrit change 11787

- **Merged a performance refactor** replacing paired Start()/End() lookups with a single StartEnd() at **24 call sites across 13 files** to halve point/mark comparisons; reviewed in Gerrit and tested by Jenkins CI.

Projects

AI Purchasing Agent – LLM Tool-Calling Agent Live Demo | GitHub

- Built an LLM purchasing agent (Next.js, TypeScript) with **no database write access**: it uses 6 read-only tools to check stock, demand, orders, supplier terms and budgets, then returns a structured decision for human approval.
- **Separated reasoning from side effects:** on approval, deterministic code writes the order in one PostgreSQL transaction (Prisma) and an independent validator rolls it back on failure; approvals are idempotent and LLM calls retry with backoff. **47/47 unit tests** and 11 PostgreSQL integration tests.

LiveDoc – Real-Time Collaborative Editor GitHub

- Built a **real-time collaborative editor** on Yjs CRDTs over WebSockets (React, TypeScript, Node.js) with live cursors and presence, verified by convergence unit tests and acceptance checks against a live server.
- **Debugged an upstream y-websocket bug** that left departed users visible for 30 s, cutting removal to **1.4–8.1 ms**, and fixed an empty-document sync race.

Payout Management System – Ledger-Based Backend GitHub

- Developed a payout backend with 13 Node.js/Express REST endpoints where **idempotency keys and state guards** make every money movement safe to retry, so each advance is paid exactly once.
- Engineered an **append-only ledger** (integer-paise entries) for advances, clawbacks, a 24-hour withdrawal cooldown and failed-payout recovery; **32/32 tests** pass, with documented concurrency strategy.

Technical Skills

- **Languages:** TypeScript, JavaScript, Python, C++, SQL
- **Backend & Web:** Node.js, Express.js, NestJS, React.js, Next.js, REST APIs, WebSockets
- **Databases & Infrastructure:** PostgreSQL, MongoDB, Prisma, Redis, BullMQ, Docker
- **Testing & Tools:** Vitest, Node.js test runner, Git, Gerrit, GitHub Actions
- **AI:** Gemini, LLM tool calling, RAG, embeddings

Education

Netaji Subhas University of Technology (NSUT) November 2022 – May 2026
Bachelor of Technology in Computer Science and Engineering *New Delhi, India*
Class XII: 92.4% | Class X: 91.8%

Achievements

- **LeetCode:** 490 problems solved; **Winner, GeekStreak 2024**; **NVIDIA-certified** in Fundamentals of Deep Learning.