

Aryan Shukla

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EDUCATION

SRM Institute of Science and Technology, Chennai
Bachelor of Technology, Computer Science and Engineering

Expected June 2028

PROJECTS

Arch — Unofficial SRMIST Academic Portal

TypeScript · React 19 · Vite · PWA · Node.js · Express · Redis

GitHub | archsrm.netlify.app | Jan 2025 – Present

- Rebuilt the SRMIST portal as a mobile-first PWA with a real authentication proxy against the live university backend — genuine session auth via HTTPS, no scraping. Reached **300+ daily active users** entirely through word of mouth.
- Engineered Redis-backed session persistence, adaptive polling, attendance risk prediction, day-order-aware timetable, and marks trend visualization; integrated VAPID push notifications as a foreground service with startup self-heal recovery.

VOCO — Offline Autonomous Windows Agent

Python · Ollama · Qwen3:4b · TF-IDF · Random Forest · CLINC150 · Textual TUI

GitHub | Nov 2025 – Present

- Fully offline, voice-activated Windows automation agent executing browser, file, and OS workflows with zero cloud dependency.
- Built a hybrid ML intent router (TF-IDF + Random Forest on CLINC150) achieving **75–85% routing accuracy**; sandboxed tool execution, flat-file memory, and a closed-loop ReAct model with structured eval logging of router confidence, step traces, and retry counts.

MaxQ — Android Music Player

Kotlin · Jetpack Compose · Media3 ExoPlayer · AGSL · MediaSession · Retrofit · DataStore

GitHub | Sep 2025 – Present

- Engineered Apple Music-style full-screen player with word-level lyrics sync (TTML/LRC), dynamic artwork accent extraction, and a multi-instance latency-aware racing system with quality cascade for lossless playback.
- Custom AGSL GlassSurface shader via SDF refraction (API 33+) with RenderEffect fallback to API 26; isolated jank via MainScaffold playbackState collection profiling and per-item waveform tuning.

Monosect — Windows Video Splitter

C++ · ImGui · GLFW · OpenGL · FFmpeg · GitHub Actions

GitHub | v1.1.0 Released | Feb 2026 – Present

- Native Windows GUI for splitting large videos under Telegram's 2 GB limit; GOP-aware keyframe detection, VBR-safe size precision engine, and a multi-format FFmpeg pipeline.
- Automated release via GitHub Actions (tag push → portable ZIP + standalone EXE with SHA256 verification); **v1.1.0 publicly shipped**.

Modus — AI Platform Enhancement Extension

JavaScript · Chrome Extension API · Playwright · GitHub Actions

GitHub | v3.5.2 Released | themodus.netlify.app | Dec 2024 – Present

- Browser extension enhancing ChatGPT with a typing lag fix, compact icon sidebar, bulk archive/delete via injected checkboxes, model badge, context usage bar, and date-grouped conversation history.
- Automated release pipeline via GitHub Actions (manifest version bump → zip packaging + SHA256 verification); **v3.5.2 publicly shipped** with a companion website.

Ratify — Commit Governance System

TypeScript · Next.js · Node.js · PostgreSQL · CLI (ratify)

GitHub | Feb 2026 – Mar 2026

- CLI tool (ratify submit) wrapping git to capture commit metadata and route changes through a role-tiered approval workflow (developer → manager → senior manager) based on file-risk classification, with a Next.js dashboard for hierarchical review.

HACKATHONS & COMPETITIONS

Ossome Hacks 3.0 — Security Track (Team Cyka)

OpenClaw: YAML-policy-governed agentic threat response with ArmorClaw enforcement for real-time adversarial defense.

Mar 2026

Guidewire DevTrails 2026 — GigSafe (Team Unfiltered Minds)

Gig-worker micro-insurance platform; confidence-tiered fraud scoring, graph-based ring detection (R1–R5), fairness-preserving telemetry protection. Working Next.js demo delivered.

2026

Barclays Hack-O-Hire 2026

Financial Risk Prediction Engine — Random Forest pipeline (≈82% accuracy) for pre-delinquency loan default detection.

2026

HeisenHack — ACM SIGKDD, SRMIST

Revenue-sharing web app; virtual equity allocation, payout logic, incentive-based discount models.

Oct 2025

DayZero — CodeNex SRMIST (36hr)

Virtual clothing try-on using Three.js, WebGL, GSAP physics animations.

Apr 2025

CERTIFICATIONS

NPTEL Elite — Programming in Java, IIT Kharagpur

Score: 85% (Assignments: 24.72/25 | Proctored Exam: 60/75) · ID: NPTEL25CS110S459701277

Jul–Oct 2025

SKILLS

Languages: Python, TypeScript, JavaScript, Kotlin, Java, C/C++

AI & ML: MLOps, Agentic Systems, LLM Integration, scikit-learn, Random Forest, TF-IDF, Ollama, OpenAI API, Anthropic API, LangChain

Frontend: React, Next.js, Vite, Tailwind CSS, shadcn/ui, Framer Motion, Jetpack Compose, PWA, Chrome Extension API

Backend & Infra: FastAPI, Node.js, Express, Redis, Docker, GitHub Actions, CI/CD, Cloudflare Pages, Netlify, Fly.io

Databases: MySQL, PostgreSQL

Tools: Git, FFmpeg, Linux, SSH, Android Studio