

Ujjwal Kumar Rai

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SUMMARY

Backend and DevOps engineer pursuing a B.S. in Data Science and Applications at IIT Madras. Co-founder of Aevrin, building backend infrastructure, AI red-teaming pipelines, and deployment systems for an AI chatbot security platform (Aegis AI). Growth Intern at Runnable, where Python automation pipelines drove 90M+ views in 4-5 months. Experienced in Node.js, Express, Spring Boot, React, PostgreSQL, MongoDB, Redis, AWS, Docker, CI/CD, vector search, LLM integration, and RAG pipelines. Ships production applications with real users across web and desktop.

EDUCATION

B.S. Data Science and Applications - IIT Madras *Expected 2029*

Computer Science and Engineering - Scaler School of Technology *Expected 2029*

EXPERIENCE

Growth Intern - Runnable *Sep 2025 - Aug 2026*

- Built Python-based automation scripts and pipelines to automate recurring workflows, reducing manual operational overhead for the team.
- Designed and executed automated brand marketing and digital presence pipelines that contributed to 90M+ views across platforms in 4-5 months.

ENTREPRENEURSHIP

Co-Founder - Aevrin (Product: Aegis AI)

- Co-built an AI security platform that audits chatbots for prompt injection, jailbreaks, sensitive data leakage, policy failures, and harmful outputs.
- Owned backend infrastructure end-to-end: REST API design, database architecture (PostgreSQL, MongoDB), and production deployment on AWS.
- Built the core AI red-teaming pipeline including LLM integration and automated adversarial test case generation.
- Set up CI/CD pipelines and deployment automation using GitHub Actions and Docker.

KEY PROJECTS

Luxe - AI Powered E-Commerce Platform github.com/spacesdrive/luxe

- Built a full-stack e-commerce backend using Express, MongoDB, JWT authentication, and Redis caching, with Stripe payments and Cloudinary media management.
- Integrated Pinecone vector search and Groq LLM API to build an AI shopping assistant and personalised product recommendation engine.

KineTube - Privacy-First Desktop Media Downloader github.com/spacesdrive/kinetube

- Built a cross-platform Electron desktop application for downloading YouTube and Instagram content (videos, Shorts, Reels, playlists, full profiles) up to 4K quality with FFmpeg merging - no accounts, no cloud, no data leaves the user's machine.
- Implemented local Whisper AI transcription (whisper.cpp) supporting 13 languages and 5 model sizes, real-time SSE-based download progress streaming, resume-interrupted-downloads, batch queue, and Instagram 2FA login with multi-account management.
- Tech stack: Electron 33, React 19, Vite, Tailwind CSS, Express 5, yt-dlp, FFmpeg, whisper.cpp, instaloader.

Twiligent - Social Media Analytics Dashboard github.com/spacesdrive/twiligent

- Built a Node.js and Express backend that aggregates YouTube and Instagram analytics into a unified self-hosted dashboard with no subscription or external data collection.

ShadyShard - Client-Side Developer Tools Platform github.com/spacesdrive/shadyshard

- Built a platform of 500+ browser-based developer tools that run entirely client-side with no uploads, accounts, or data tracking, using React, TypeScript, and Vite.
- Implemented a complete CI/CD pipeline with unit tests (Vitest), end-to-end tests (Playwright), accessibility audits (axe-core), and pre-commit automation via Husky, lint-staged, and commitlint.

ACHIEVEMENTS

- Special Mention, Monad Blitz Bangalore (2026) - Built AgentShield - adversarial safety checks for AI agents with tamper-resistant proof and ERC-8004 style validation.
- 2nd Place, LaunchPad Bangalore (2026) - Pitched Aegis AI to investors and judges.
- 3rd Place, Campus Fund Hackathon (2025) - Built the MVP of Aegis AI.
- 2nd Place, Auraverse 2.0 Bangalore (2025) - Built a deepfake detection pipeline with custom model training and inference.

LEADERSHIP

Core Member, Marketing Team - Ascent Tech Fest, Scaler School of Technology

TECHNICAL SKILLS

Languages	TypeScript, Python, Java
Backend	Express, Spring Boot
Frontend	React, Vite, Tailwind CSS
Databases	MongoDB, PostgreSQL, Redis
Cloud and DevOps	AWS, Docker, CI/CD (GitHub Actions), Linux and shell scripting
AI and ML	Vector search (Pinecone), LLM integration, RAG pipelines