

Aadarsh Shrestha

Co-founder, Chairperson & CEO, BlackFire AI · AI Engineer

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Profile

Founder and AI engineer building AI for Nepali and the low-resource languages of Nepal. Co-founded Blackfire A.I. Pvt. Ltd. and lead it as Chairperson & CEO. BlackFire works from one belief: AI helps people only when it is built into the tools they use, in the language they speak. Three products are in market so far, and the company is part of NVIDIA Inception.

Co-built Aawazz (Nepali-first text-to-speech and voice cloning) with co-founder Anup Adhikari, and created and leads Tipni (meeting notes for Nepali, English and code-switched speech). Met Anup at Kantipur Media Group, working there first as a data engineer preparing a company-wide ERP for AI, then as an AI engineer building newsroom tools. Left in September 2026 to run BlackFire full time.

Highlights

- **Company:** co-founded Blackfire A.I. Pvt. Ltd. in Lalitpur with Anup Adhikari (CTO); incorporated 22 July 2026, Reg. No. 396909/83/84.
- **Products:** three Nepali-language AI products in market: [Aawazz](#) (live), [LipiSub](#) (live) and [Tipni](#) (public beta), all priced in NPR.
- **Programmes:** NVIDIA Inception member (accepted August 2026); US\$10K in credits each from AWS Activate (September 2026) and Cloudflare for Startups (October 2026).
- **Research:** BlackFire is fine-tuning open models toward a Nepali-first language model, and has developed two Nepali speech-recognition models. Personally designed a Newari (Nepal Bhasa) TTS recording script covering 100% of reachable phonemes.
- **Community:** demoed Aawazz with Serena Shakya at Cursor Kathmandu on 10 August 2026. Earlier, volunteered at TEDxIIIMS on 30 November 2024 and co-hosted its audience Q&A on stage.

Experience

Co-founder, Chairperson & CEO — Blackfire A.I. Pvt. Ltd. (BlackFire AI)

Lalitpur, Nepal · July 2026 – present

Decide what BlackFire builds and in what order, set pricing, and handle partnerships and startup programmes. Still build: co-built Aawazz with Anup and lead Tipni.

Products

- [Aawazz](#) — **co-creator and engineer (live)**. Nepali and English text-to-speech, voice cloning from a 30-second sample, and video dubbing on web and Android. 20+ studio voices, inline Nepali-English mixing, tone control, and a WebSocket streaming API with under 300 ms to first byte. Built around Nepali phonetics from the start: conjuncts such as क्ष, the vowel ऋ, and sandhi. Plans from free to ₹ 9,999/month.
- [Tipni](#) — **inventor and lead (public beta)**. Meeting notes for Nepali, English and code-switched meetings. Every note links to the transcript quote behind it, and a verification pass drops claims the transcript does not support. Audio is saved on the device and uploaded in verified pieces, so a dropped connection resumes. Includes consent-based speaker recognition, daily and total caps on AI spend, and an audited admin console. React, TypeScript, Express, Prisma/MySQL, S3/R2, deployed on AWS.
- [LipiSub](#) — **developer (live)**. AI subtitles for Nepali and English video: code-switched transcription, an AI correction pass, word-level timing, a live editor, and burned-in or SRT/VTT/ASS export, in under two minutes per video. The browser extracts the audio track, so uploads are megabytes, not gigabytes.
- [AskNepal](#) — **product lead (in development)**. An AI guide to Nepal's government services, in the spirit of USA.gov. Ask in English or Nepali how to get something done, such as a passport, PAN or driving licence, and it gives step-by-step instructions, the documents and forms required, and the office or site to use. Answers draw only on official .gov.np sources and link every page used.

Research

- **Newari text-to-speech data (built)**. Designed a phased pipeline that turns Nepal Bhasa Wikipedia and Wiktionary data into one master recording script for a single narrator. Steps: language filtering, grapheme-to-phoneme conversion, a phonetic inventory, and set-cover sentence selection. Result: 507 lines (~49 minutes) covering 100% of reachable phonemes, 99.75% of diphones and 99.63% of conjuncts, verified by 12 automated acceptance checks.
- **Nepali speech recognition (company research, led by the CTO)**. Two Nepali ASR models: a 325M-parameter model that outputs punctuated text, trained on 66.9 hours of Nepali and 9.7 hours of English, and a faster XLS-R 300M model for CPU deployment.

- **Nepali-first language model (in development).** Fine-tuning open models on Nepali, English and code-switched text, as the shared base for Aawazz, Tipni and LipiSub.

Client work delivered through BlackFire

- [Root.ed](#) — **sole developer.** Editorial website for a Kathmandu learning studio that makes books, games and workshops for children. Next.js 16, React 19 and Vite on Cloudflare Workers, with a Three.js hero scene, a low-power fallback, keyboard access and reduced-motion support.
- [SHODH Nepal](#) — **developer.** Production website for SHODH Consultancy, a social science research firm: trainings, workshops, projects and reports. React, TypeScript, Vite and Tailwind, with per-route SEO, CI quality checks and browser regression tests.

Data Engineer → Data & AI Engineer — Kantipur Media Group and MediaStack AI

Kathmandu, Nepal · April 2026 – September 2026

- Data Engineer, Kantipur NEO, Kantipur Media Group (publisher of Kantipur and The Kathmandu Post) · April – June 2026
- Data & AI Engineer, MediaStack AI at M&S Labs · June – September 2026

Moved from data engineering into AI engineering on production systems, then left in September 2026 to run BlackFire full time. LinkedIn recommendations from Dibbeshwor Acharya (direct manager) and Ritesh Ghimire (senior engineer).

- **KMG ERP — AI-ready data foundation.** Consolidated a company-wide Oracle ERP into PostgreSQL and rebuilt it as a Bronze/Silver/Gold pipeline in dbt and Apache Airflow. It delivers AI-ready data to an in-house corporate AI for decision support. Personal data is pseudonymised before the business layer, in line with Nepal's Individual Privacy Act 2075.
- **Cutaway — frontend developer.** Built the React dashboard for an AI clipping service that turns long-form video into short clips, with Nepali transcription, face-tracked reframing and Devanagari or Roman-Nepali captions. The service runs on an open-source clipping engine with a Fastify API, Python worker, Postgres and Cloudflare R2.
- **Newsflow — full-stack developer.** Built a web editor for composing a newspaper's print edition, with a TypeScript layout engine and a separate PDF service (Hono, Playwright, Ghostscript) that renders print-ready PDF/X.
- **KMG Analytics Dashboard — developer and data analyst.** Developed the group's analytics dashboard and analysed the data behind it.

Data Engineering Intern — eXtensoData (F1Soft Group)

Lalitpur, Nepal · August 2025 – January 2026

Data analytics company within F1Soft Group, Nepal's leading fintech group.

- Completed a structured data engineering programme: ETL pipelines and Apache Airflow DAGs with Spark, SQL and Linux, validated with formal QA/QC test plans.
- Built an event-driven Airflow pipeline that compresses files uploaded to a shared Google Drive folder and emails their metadata, running in Docker.
- Built a Spark ETL job that ingests CSV data, fills missing values, splits datetime fields and loads consolidated output for analysis.

Skills

Area	Skills
Leadership	Company formation, product strategy, pricing in NPR, go-to-market, partnerships and startup programmes, responsible AI practice, leading a team across AI engineering, product, design and content
AI and speech	Text-to-speech and voice cloning, speech recognition, speaker diarization, LLM pipelines, source-grounded answers, claim verification against transcripts
Low-resource languages	Devanagari text processing, grapheme-to-phoneme conversion, phonetic coverage and recording-script design, Nepali-English code-switching, Newari
Product engineering	TypeScript, Python, SQL; React, Next.js, Vite, Tailwind; Node.js (Express, Fastify, Hono); Prisma
Data and infrastructure	PostgreSQL, MySQL, Oracle; Apache Airflow, dbt, Spark; Docker, GitHub Actions; AWS, Cloudflare (R2, Workers), Vercel

Education and certifications

- **Bachelor of Computer Science (Hons)**, Taylor's College, studied at IIMS College, Kathmandu · 2022 – 2026
- **SQL (Advanced)**, HackerRank · 2025
- **AWS Certification (Foundational)**, Amazon Web Services · 2022