

Kaushal Rijal

Software Engineer

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[LinkedIn](#) | [GitHub](#) | [Website](#)

Profile

Computer engineering student and software engineer with experience building full-stack applications, AI-agent systems, and asynchronous backend workflows. Interested in systems and applied AI, with a focus on building reliable, understandable software.

Education

B.E. Computer Engineering

2024 – 2028

Tribhuvan University, IOE Purwanchal Campus

Experience

Youanai Technologies

Jan 2026 – Aug 2026

Software Engineer

- Built an asynchronous, event- and schedule-driven campaign pipeline for AI content generation, media creation, scheduling, retries, and failure isolation.
- Built an email support application integrating Gmail and Microsoft Graph with asynchronous synchronization, conversation threading, AI drafts, summaries, playbooks, and automated workflows.
- Built a Twilio SMS agent with phone onboarding, signed webhooks, encrypted phone identities, deduplication, rate limiting, approvals, and asynchronous execution.
- Designed a reusable multi-application agent architecture with shared UI, capabilities, tool filtering, permissions, and approval policies.

Selected Projects

- **Lipi** [\[GitHub\]](#)
 - Implemented a statically typed programming language with Romanized Nepali keywords, including lexical analysis, parsing, AST construction, symbol tables, and semantic analysis from scratch in C++.
- **Real-Time Credit Card Fraud Detection** [\[Demo\]](#)
 - Built a real-time fraud detection pipeline with ML inference and Redis-backed workers for asynchronous alert processing and LLM-generated explanations.
 - Integrated LightGBM, SMOTE, SHAP, FastAPI, and email notifications for explainable fraud detection.
- **eKommerce** [\[GitHub\]](#)
 - Built a full-stack e-commerce application with Next.js, TypeScript, Prisma, PostgreSQL, and Zod for product, cart, and order workflows.

Technical Skills

Languages: TypeScript, JavaScript, Python, C, C++

Frontend: React, Next.js, Tailwind CSS

Backend: Node.js, Express, FastAPI, PostgreSQL, Prisma, Redis

AI: AI Agents, LLM APIs, Tool Calling, Structured Outputs, OpenAI, Anthropic

Engineering: Docker, Git, GitHub, REST APIs, OAuth, Webhooks, AWS S3, Twilio

Community

Founder and Secretary, Developers Association Jhapa (DAJ)

2024 – Present

- Organized technical workshops, programming sessions while leading a developer
- Organized Jhapa's first international hackathon, coordinating planning, logistics, and technical execution community in eastern Nepal.

Hackathon Mentor, Godawari Hacks

2026

Awards

Winner, Taranga: The Wave of Technology

2026

Best Social Impact Award, ACES Techfest 7.0

2024

Runner-up, C Programming Competition, ACES

2024