UPAHAR KHATIWADA

Portfolio | upaharlol@gmail.com | +977-9861515920 | LinkedIn | GitHub

EXPERIENCE

AI Safety Fellow, AI Safety Nepal Aug 2026 – Sept 2026
- Selected for an AI safety research fellowship focused on evaluating and mitigating undesirable behaviours in large language models.
- Engaged in discussions with peers and mentors on AI safety risks and their potential harms to move towards research.

Software Engineering Intern, Institute of Engineering (IOE) May 2026 – Present
- Contributing to the development of a real-world campus management system for government engineering campuses affiliated with IOE.
- Designing and implementing scalable full-stack features to support academic and administrative workflows for faculty members.
- Collaborating with stakeholders to analyze requirements, model database schemas, and build maintainable software solutions.

Development Lead, IT Club IOE Pulchowk Campus Jun 2026 – Present
- Lead and coordinate club initiatives, events, and activities, ensuring effective planning and execution.
- Collaborate with team members and volunteers, delegate responsibilities, and manage timelines to achieve organizational goals.

Full Stack Developer, TechSapana Feb 2026 – Mar 2026
- Reduced company hosting expenses by optimizing performance and leveraging efficient deployment strategies with Next.js and Vercel.
- Deployed and managed backend services using Nginx with secure SSL configuration via Certbot.
- Built and deployed multiple websites with polished UI and animations within 2 months, boosting company revenue.

AI Fellowship, Fusemachines *[Certification Verification]* April 2025 – December 2025
- Completed Fusemachines AI Fellowship, gaining in-depth knowledge of AI/ML concepts under the mentorship of industry experts.

Python Instructor, Cosmos College of Management and Technology Jan 28, 2025 - Feb 03, 2025
- Delivered beginner-friendly Python sessions to 100+ students with interactive exercises and quizzes.

PROJECTS

NepSyc, LLM Sycophancy Benchmark *[Source Code]* **Python, Streamlit, Plotly, Pandas, LLM APIs**
- Built an open-source benchmark measuring six sycophancy behaviours in LLMs across English, Nepali and Romanized Nepali.
- Designed an LLM-as-judge panel with paired-condition experiments, validated against human annotations
- Built a multi-page Streamlit dashboard with Plotly charts, a prompt inspector, and hidden-state analysis.
- Integrated multiple OpenAI-compatible model providers (Groq, Gemini) with response caching and rate limiting.

ClipGen, AI Shorts Video Generator *[Source Code]* **Next.js, tRPC, TypeScript, Redis, Neon, Cloudinary, Stripe**
- Implemented secure authentication with session auth, OAuth, and email verification using SendGrid.
- Developed an end-to-end type-safe system using Next.js and tRPC to reduce runtime errors.
- Used Redis for rate limiting and caching, Neon for persistent data storage, and Cloudinary for media handling.
- Integrated Stripe webhooks to support one-time payments and subscriptions.

Chatly, A Chat App *[Source Code]* **Socket.io, React, Node.js, Express, MongoDB, Cloudinary, Docker**
- Built and dockerized a real-time chat app enabling private conversations using React and Node.js/Express.
- Integrated Socket.io for instant messaging with real-time delivery and user presence updates.
- Managed persistent chat data storage and retrieval using MongoDB, including chat history and message metadata.

LazyFlare, A DNS Server *[Source Code]* **Rust**
- Developed a DNS server capable of resolving domain names efficiently.
- Implemented support for A records to map domain names to IPv4 addresses and CNAME records for alias resolution.

SKILLS

- **Programming Languages**: Dart, JavaScript, TypeScript, Python, Rust, C++, C
- **Libraries & Frameworks**: Flutter, Firebase, Next.js, React.js, Express.js, tRPC, Redis, FastAPI, NumPy, Pandas, Matplotlib, scikit-learn

EDUCATION

IOE Pulchowk Campus, Nepal Jan 2024 – Present
Bachelor of Engineering, Computer Engineering **GPA**: 3.86 (Average)

PRESENTATIONS & ACHIEVEMENTS

Hult Prize Nepal, 2025 & 2026
- Finalist at Hult Prize Nepal, collaborating with TU Teaching Hospital speech therapists; ranked top 8
- Competed as a finalist at Hult Prize IOE Pulchowk Campus, and secured second position

IEEE ACEI, 2025
- Winner of the IEEE Region 10 (Asia-Pacific Region) ACEI Pitch Competition

Young Scientists Summit, 2023
- Presented an astronomy-related project built using Arduino at the summit