UPAHAR KHATIWADA

🌐 Portfolio | ✉ upaharlol@gmail.com | 📞 +977-9861515920 | 🔗 LinkedIn | 🐙 GitHub

EXPERIENCE

- **Full Stack Developer, TechSapana** — Feb 2026 – Present
  - Built and maintained web applications with responsive, user-friendly interfaces.
  - Developed APIs and managed databases while collaborating with cross-functional teams.
- **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

- **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.
- **OBJCraft, A 3D OBJ File Renderer** *[Source Code]* **C++, Raylib**
  - Developed a 3D OBJ File renderer and editor from scratch in C++ to read, display, and manipulate OBJ files with an interactive UI
  - Implemented multiple viewing modes like orthographic and perspective, also enabled importing and exporting custom obj files
- **DocuAgent, Document Pre-Processing Pipeline** *[Source Code]* **Python, FastAPI, PaddleOCR, OpenAI/Gemini API, OpenCV**
  - Built an AI-powered document processing pipeline to extract, structure, and summarize PDF content, transforming complex layouts and tables into machine-readable JSON.
  - Integrated advanced language models via OpenAI/Gemini API for live chat and concise document summarization.
  - Developed a FastAPI backend for real-time processing and seamless integration with downstream applications.
- **Roamly, A Travel App** *[Source Code]* **Dart, Flutter, Firebase, Provider**
  - Developed a travel booking application using Flutter, leveraging Firebase for user authentication and real-time data management with Firestore and Provider for state management.
  - Implemented dynamic trip search and filtering, enabling users to browse and book destinations based on preferences.
  - Integrated Open Streets Map for viewing the location of the destinations.
  - Designed intuitive UI/UX with responsive navigation and state persistence across app sessions to enhance user experience.
- **ShopCart, A Shopping App** *[Source Code]* **Dart, Flutter, Firebase, Provider**
  - Built a cross-platform shopping application using Flutter, featuring seamless user authentication via Firebase Authentication and real-time database integration with Firestore and Provider for State Management
  - Enabled secure online payments by integrating Stripe, E-sewa and Khalti Payment Gateway
  - Integrated GalliMaps API to enable dynamic, location-based autocomplete search for delivery addresses and other essential features such as category-based product search, cart management, etc

SKILLS

- **Programming Languages**: Dart, JavaScript, TypeScript, Python, Rust, C++, C, SQL
- **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**: 3.9 (Average)

PRESENTATIONS & ACHIEVEMENTS

- **Hult Prize Nepal, 2025**
  - 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