

Profile

Computer Engineering student at Pulchowk Campus specializing in AI Agents and Full-Stack Systems. Experienced in building RAG applications, 3D engines, and scalable web platforms. Currently focused on developing autonomous AI coding agents and exploring the intersection of Large Language Models (LLMs) and automated software engineering.

Education

Pulchowk Engineering College, BE Computer Engineering – Lalitpur, Nepal

- Currently in 5th Semester.
- **Relevant Coursework:** Artificial Intelligence, Data Structures & Algorithms, Database Management Systems, Computer Networks, Operating Systems, Object-Oriented Programming.

KMC (Kathmandu Model College), +2 Science – Lalitpur, Nepal

- GPA: 3.84 / 4.0

Professional Experience

Instructor, LOCUS Software Fellowship

- Mentoring university students on Backend Development, RESTful API design, and Git workflows.
- Leading workshops on full-stack integration and scalable software architecture.

Web Development Team Member, FSU Pulchowk

- Collaborating on the development and maintenance of official web platforms for the student body.
- Implementing responsive UI components and optimizing backend performance for campus-wide tools.

Projects

Autonomous Agentic Coder

- Developing an AI-driven coding agent capable of autonomous task planning, file manipulation, and debugging.
- Implementing reasoning loops using LLMs to bridge the gap between natural language prompts and executable code.

RAG-based AI Chatbot

- Engineered a Retrieval-Augmented Generation (RAG) system using **FastAPI** and **Transformers**.
- Enabled semantic search over custom knowledge bases to provide context-aware responses with reduced hallucinations.

2D Multiplayer Metaverse

- Built a real-time multiplayer world using **Next.js**, **Socket.IO**, and **WebRTC** for low-latency sync.
- Implemented custom server-side state synchronization and dynamic map collision logic.

3D Game Engine (C++)

- Developed a 3D engine using **C++** and **OpenGL** featuring model loading and a custom rendering pipeline.

Skills

AI/ML: AI Agents, LLMs, RAG, Transformers, PyTorch, TensorFlow, FastAPI, OpenAI API, LangChain

Web Development: React, Next.js, Node.js, TypeScript, Django, WebRTC, Socket.IO, Tailwind CSS

Engineering Tools: Docker, Git, Postman, LaTeX, Linux, MongoDB, PostgreSQL, SQL, Redis

Leadership & Extracurricular Roles

Executive Member, IEEE Computer Society, Pulchowk Branch

Marketing Team, LOCUS 2026 (National Level Tech Festival)