Shashanka Luitel

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Education

Kathmandu University — Dhulikhel, Nepal
B.E. in Computer Engineering — *Dec. 2020 – Aug. 2025*
- GPA: **3.69/4.00**

DAV College — Lalitpur, Nepal
+2 Science, NEB — *2018 – 2020*
- GPA: **3.76/4.00**

Professional Experience

Software Engineer — Apr. 2025 – Dec. 2025
Citytech Group Pvt. Ltd. — *Kamaladi, Kathmandu*
- Contributed to the development and enhancement of remitPulse, a production-level fintech admin portal used for remittance and compliance workflows
- Implemented Redux for global state management and handling asynchronous API calls
- Analyzed and modified existing stored procedures, gaining hands-on experience with SQL queries
- Tested and validated APIs using tools such as Postman and Swagger
- Participated in Agile development through sprint planning, task tracking, Git workflows and peer code reviews

Research Work

Digital Health in Nepal: Past, Current and Future Scenarios. Survey paper, Department of Computer Science and Engineering, Kathmandu University, 2024. Link

Projects

MindSense - Machine Learning-Based Mental Health Score Prediction | GitHub | Demo
Tech Stack: Next.js, TypeScript, FastAPI, Python, Pandas, Scikit-learn
- Developed a full-stack machine learning application that predicts mental health scores based on users' digital habits, lifestyle, and academic factors
- Performed data preprocessing before training the machine learning model, and integrated it with a FastAPI backend for real-time predictions

TripSync - Multi-Agent AI Trip Planner | GitHub | Demo
Tech Stack: Next.js, TypeScript, FastAPI, Python, LangChain, LangGraph, PostgreSQL, Groq, Tavily
- Developed an AI-powered trip planner that generates personalized, budget-aware itineraries using a multi-agent workflow
- Integrated LangGraph with web search and travel APIs to gather relevant information for itinerary planning
- Implemented PostgreSQL-backed conversation history, trip history, and PDF itinerary exports

Trek Diaries - Social Media Platform for Trekking Enthusiasts | GitHub | Demo
Tech Stack: Next.js, TailwindCSS, NeonDB, DrizzleORM, Cloudinary, NextAuth, Expo, Redis, Algolia
- Built a trekking-focused social platform enabling users to share posts and interact through likes and comments
- Integrated a recommendation system to personalize content and enhance user experience
- **Mobile App** : GitHub

Battleship - Multiplayer Strategic Game | GitHub | Demo
Tech Stack: React.js, Node.js, MongoDB, Socket.io
- Developed a browser-based multiplayer tactical game where players command fleets of warships
- Implemented turn-based gameplay with logic to track guesses, hits, misses, and fleet destruction conditions

Flight Delay Data Visualization | GitHub | Demo
Tech Stack: Streamlit, Python
- Developed a comprehensive data mining and visualization dashboard to analyze historical flight data
- Processed flight delays, cancellation reasons, and temporal trends to identify patterns and provide insights

Technical Skills

Programming Languages: Python, JavaScript, TypeScript, C/C++, SQL

Frontend: React.js, Next.js, React Native, Redux Toolkit, Tailwind CSS

Backend: Node.js, Express.js, FastAPI, Flask

Database: MySQL, PostgreSQL, MongoDB, Redis

Machine Learning: Scikit-learn, Pandas, NumPy, Data Preprocessing, Model Evaluation

Tools: Git, GitHub, Docker, Swagger, Postman

Leadership & Activities

Developer Lead Aug. 2024 – Dec. 2024

IT MEET 2024

- Led a team of developers to build and maintain the website of IT MEET 2024, a national-level annual tech event organized by Kathmandu University Computer Club (KUCC)

Design Lead Aug. 2023 – Oct. 2023

KU HACKFEST 2023

- Designed visual assets for the event in collaboration with other teams

Microsoft Learn Student Ambassador 2023 – 2025

MICROSOFT

- Conducted coding workshops and events at multiple institutions to help students build early coding habits

Languages

Nepali [Native] **English** [Fluent] **Hindi** [Fluent] **German** [Learning]