# Ashish Neupane

Kathmandu, Nepal proxyashish.bin@gmail.com +977-9866149460
ashish-neupane.com.np ashish-neupane77 ItsAash

## Skills

**Languages:** Python, C++, JavaScript/TypeScript, Golang

**Backend & Software Engineering:** REST APIs, FastAPI, NestJS, GraphQL, OOP, DSA

**Data & Analytics:** SQL, Apache Spark, Pandas, NumPy

**AI/ML:** TensorFlow, PyTorch, Scikit-learn, OpenCV

**Tools & Platforms:** Git, Docker, Databricks, Linux, AWS (EC2, S3, API Gateway)

## Education

**Kathmandu University** *2021 – 2026*
BE in Computer Engineering
Dhulikhel, Kavre

## Experience

**Software Engineering Intern** *2025 - 2026*
ICT Nepal Pvt. Ltd.

- Contributed to development of **Boxsa**, a production-grade e-commerce platform
- Developed backend APIs using NestJS and worked on frontend features using Next.js
- Monitored 2 interns by reviewing 20+ pull requests and resolving technical blockers

**Co-Founder & Engineering Contributor** *2023 – 2025*
DrFish

- Worked on data ingestion and preprocessing pipelines for IoT-generated sensor data.
- Assisted in applying ML-driven insights to improve system monitoring and decision-making.
- Collaborated with cross-functional teams to integrate data analytics into backend systems.

**Core Developer** *2020 – 2022*
Ecstatic Paradox

- Supported development and execution of simulation-based software systems.
- Assisted in managing runtime environments and debugging system-level issues.
- Collaborated in maintaining modular, version-controlled codebases.

## Projects

**SQL Query Parser using SLR(1)** *2025*

- Built a SQL-like query parser implementing full lexical analysis and SLR(1) parsing.
- Designed and validated grammar rules, FIRST/FOLLOW sets, and parsing tables for deterministic parsing.
- Reduced parsing ambiguity to 0 conflicts in final SLR(1) table.
- Tech: Elixir, Streamlit, Compiler Design Concepts.

**AI-Styled Spaces: Dynamic Interior Redesign** *2025*

- Built an interior redesign app using Stable Diffusion (text2img, ControlNet Canny, inpainting).
- Applied structure-preserving style transfer while maintaining spatial layouts.
- Enabled object-level editing via masked inpainting for targeted replacements.
- Enhanced output realism using LoRA fine-tuned weights and custom checkpoints.
- Tech: Python, Stable Diffusion, ControlNet, PyTorch.

**Guitar Chord Classification System** *2024*

- Built an end-to-end audio classification pipeline for multi-class guitar chord recognition.
- Engineered feature extraction using spectrogram-based representations.
- Achieved **80.62% classification accuracy** on test dataset through model tuning and experimentation.
- Tech: Python, TensorFlow, Librosa.

## Achievements

- Winner — Hult Prize 2024 (Kathmandu University)
- Competitor — Hult Prize Asia Regionals 2024 (Thailand)
- Finalist — Founders Conference 2024, KUSOM
- Winner — Line Following Robot Competition, IT MEET 2023