Dipesh Thapa

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Education

- **Advanced College of Engineering and Management** — Tribhuvan University
  Bachelor of Engineering — *2020 – 2025*
- **Nepal Mega College** — High School
  2017 – 2019

Skills Summary

- **Languages**: C, C++, Python, Javascript, MATLAB
- **Proficiencies**: Computer Vision, Medical Imaging, Deep Learning, Machine Learning, and Natural Language Processing
- **Frameworks**: Pytorch,Django, Latex
- **Database**: SQL, MYSQL, PostgreSQL, and Mongodb

Experience

- **Fusemachines AI Fellowship** — Kathmandu, Nepal
  April 2024
- **Project Association for Computer and Electronics (PACE)** — kathmandu, Nepal
  President — *March 2023 - Present*
- **LOCUS Hardware Fellowship** — Lalitpur, Nepal
  Volunteer as Tutor — *December 2022 - March 2023*

Projects

- **Multi-organ Segmentation of Abdomen using UNet and SegResNet** 2023
  Deep Learning and Developed WebApp uisng Flask
  - Developed a deep learning model for the automated segmentation of multiple abdominal organs using the UNET and SegResNet architectures. The project involved using Python and PyTorch to process medical images, aiming to improve the accuracy of organ segmentation. The enhanced segmentation capabilities of this model can significantly aid in medical diagnostics and research.
- **Micromouse Maze Solving Robot** 2023
  Maze Solver
  - Worked on a Micromouse project, where I developed an autonomous robotic mouse designed to navigate and solve a maze. The project involved designing and programming the robot using C++ and microcontroller platforms. I implemented algorithms for maze-solving, including pathfinding and optimization techniques, to enable efficient navigation. This project enhanced my skills in robotics, embedded systems, and algorithm development.
- **File Compression (Huffman Algorithm)** April 2022
  Algorithm Implementation using Django
  - Developed a project implementing Huffman coding, a data compression algorithm used to reduce the size of data without losing information. This project demonstrates proficiency in data structures and algorithms, particularly in the area of efficient data compression techniques.

Certification

- IOE Full Scholarship for the duration of the four-year undergraduate program
- IIT Bombay Techfest Cozmoclench Regional winner 2022
- IIT Bombay Techfest Micromouse Regional winner 2023
- LOCUS Beginner CTF Third winner 2023
- HexHimalayan CTF winner 2023

Languages

English - proficient, Hindi - conversational, Nepali - native