Nishan Khanal

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@ https://github.com/nikhanal

Hello! I'm an undergraduate engineering student with a keen interest in technology. My primary focus is on machine learning. I continuously seek updates in these fields and am always eager to learn about the latest advancements. I'm deeply fascinated by the rapid changes in technology and always ready to broaden my knowledge.

EXPERIENCE

Research And Development Head

Kathmandu

ECAST Thapathali

Jun, 2023 - Present

- Serving as the Research and Development Head of the ECAST club at Thapathali Campus, leading initiatives to foster a strong research culture among students.
- Conducted community-based workshops to impart foundational knowledge in AI and ML to student

Frontend Web Developer

Kathmandu

Thapathali Campus

Jun, 2023 - Present

- Served as a Frontend Developer in a project to redevelop the college's website (https://tcioe.edu.np/), focusing on improving user experience and functionality.
- Integrated and communicated effectively with APIs to provide real-time and accurate data on the website.

Freelance Web Developer

- Freelanced and created websites for two clients: education consultancy, health NGO and typing institute.
- Developed USSAF Nepal's website (https://ussafnepal.org/) to showcase their mission and services.
- Wroked as fullstack developer to create a dynamic typing test website that seamlessly integrates Unicode typing challenges supports english, hindi and mangal typing test using node js, postgresql and next js (https://anandtyping.com/)

EDUCATION

Bachelor's in Electronics, Communication and Information Engineering

Kathmandu

Thapathali Campus, IOE, TU

Apr, 2021 - Present

+2 in Science

Lalitpur

Prasady Academy

Jul, 2017 - Jul, 2019

PROJECTS

Autonomous Rubik's Cube Solver

- Mechanical Automation: Engineered a system to manipulate a Rubik's Cube with 1 degree of freedom, optimizing the mechanical solver for precision and reliability. Vision System Implementation:
- Configured YOLOv8 to detect and analyze the cube's configuration, ensuring accurate recognition needed for solving algorithms.
- GUI Development: Created an interactive GUI for real-time visualization of the cube's status, enhancing user interaction and system control.
- Demo video: https://youtu.be/Pms7SnDyZjA

Pulse Post

- Developed a social media application, 'Pulse Post'(https://pulsepost.onrender.com/) as part of a Database Management System project, demonstrating deep understanding of SQL and relational databases.

Local Insights

- User-friendly interface for tourists to explore curated spots and access detailed information.

- Integrated dynamic features: user authentication, server communication, and database integration.
- https://github.com/nikhanal/vertex-local-insights.

ACHIEVEMENTS

Published Research Paper

- "Mechanical Automation with Vision: A Design for Rubik's Cube Solver" was published in Proceedings of 15th IOE Graduate Conference
- Implemented YOLOv8 object detection and developed of robotic system to solve the rubik's cube autonomously
- http://conference.ioe.edu.np/publications/ioegc15/IOEGC-15-023-C1-2-42.pdf

TRAINING/CERTIFICATIONS

Complete Machine Learning & Data Science Bootcamp 2023 2023

Udemy

Supervised Machine Learning: Regression and Classification 2023

Coursera

Hardware Fellowship 2022

Locus

SKILLS

ML/DL: TensorFlow, scikit-learn, Data analysis and Visualization: Pandas, Numpy, GeoPandas, Matplotlib, Data Stucture and Algorithm, C/C++ programming, Js, ReactJs, Nextjs, NodejJs