Ayush Paudel

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WORK EXPERIENCE

OCT 2022 – CURRENT Dhulikhel, Nepal

RESEARCHER KATHMANDU UNIVERSITY DEPARTMENT OF HEALTH INFORMATICS

- Researched lower respiratory infections common in Nepal.
- Researched an efficient objection detection model to detect Active Tuberculosis and Obsolete Pulmonary Tuberculosis from medical images.
- Researched an efficient Object detection model to detect lung abnormalities like Airspace Opacity, Pleural Effusion, and Cavitation in medical images.
- Researching an efficient Image segmentation model for pneumothorax detection in medical images.
- Developing Computer-aided diagnosis (CAD) software to aid doctors in remote areas of Nepal.

JUL 2022 – CURRENT

RESEARCHER PROTAL CONSULTANCY AND ENGINEERING COLUTION

The company was developing a Multi-grain Electric Drying Silo. The research work was involved in this project.
Currently,

- Researched temperature, climate, and other factors responsible for drying and storing the grains using sensors
- Designed a prototype for the system

MAR 2022 – CURRENT Dhulikhel, Nepal

RESEARCH ASSISTANT IN UNIVERSITY ACTIVE LEARNING LAB, KATHMANDU UNIVERSITY

- Technical and information management of the lab
- Configured GPU clusters for deep learning.
- Researched the prospect of integration of synchronous learning mode in Moodle
- Configured and Administered parallel cluster nodes for Kathmandu University Learning Management System
- Deployed Synchronous communication platform in KU server
- Did load balancing by deploying multiple servers for the platform

OCT 2021 – MAR 2022 Kathmandu, Nepal

BACKEND INTERN NAXA NEPAL

- Fixed Project Issues
- Contributed to the standup meetings
- Contributed to the then ongoing projects

21 OCT 2020 – CURRENT

AUTHOR JETBRAINS ACADEMY

- Author Projects and topics for students to learn and practice
- Test projects and write report about the platform
- Moderate the site
- Respond to the queries of students.
- Maintain communication between people using the platform and support team and developers.
- Track and filter hateful comments, queries, hints, and spoilers.

Website https://hyperskill.org/tracks/2

EDUCATION AND TRAINING

2019 – CURRENT Kavre, Nepal
UNDER GRADUATE Kathmandu University

Address Dhulikhel, Banepa, Kavre, Nepal | **Website** https://ku.edu.np/

ADDITIONAL INFORMATION

PROJECTS

Hotel Management System HMS is a project written in C programming language, which uses MYSQL database and Amazon RDS. This project was created targeting the moderate lodges and hotels of Nepal that rely on paperwork for storing their information.

Inventory Management System An inventory management system that uses Django Rest Framework for backend and Flutter for frontend. This project is equipped with a personalized recommendation engine that has been trained on the user's data which was available in the project. The project also has a rewarding system that rewards the user with a blockchain-based cryptocurrency which is known as IMS coin. This coin can be provided real value and be used as a real coin as it is based on Etherum. This project was completed with team effort, where I was mostly involved in the backend.

AyurEye A research-based project thatwhich predicts three pathologies in lung abnormality: Airspace opacity, Cavitation, and Plural Effusion and also provides segmentation and bounding box on the places the abnormality is detected.

8085 Emulator A project to emulate 8085 microprocessor on present day devices. The project takes assembly codes that 8085 microprocessor can work on and displays the functionality.

RESEARCH BASED PROJECTS

CURRENT
Design of Flood alarm system For 73 MW Tamur Hydropower Project

- Researched the prospect of developing flood alarm
- Researched the use of sensory systems and GIS systems for the identification of the rise in water level

DEC 2022 – CURRENT
Hatchery Management System

A research-based development project that aims to study the hatching process of an egg, and develop an automated system that maintains temperature, humidity, and other factors essential for successful hatching.

SEP 2022 – CURRENT
Computer vision on chest radio-diagnosis

In this research work, the aim was to use Computer vision and Machine Learning to build an assistive platform for chest radio-diagnosis. I was involved in the backend and research portion of the project, where various algorithms for diagnosis were tested.

MAR 2022 – CURRENT
Learning Management System through Kathmandu University High Performance Computing (KU HPC) Cloud

This research work aimed at developing pilot level cloud based LMS in Nepal in coordination with Kathmandu University High Performance Computing (KU HPC) team by deploying an open-source LMS in a cloud environment. The research builds on the fact that the limitation of e-learning in the context of availability from a web server can be enhanced if the same is implemented through cloud hosting.

One of the project's achievements was the implementation of a synchronous meeting platform in the HPC servers, which has been tried and tested.