Anurag Timilsina

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Education

Kathmandu University June 2024
B.E. Computer Engineering

Kathmandu University High School (A Levels) June 2018
High School

Skills

Languages: Python, Javascript, C, C++
Technologies: Git/GitHub, Linux, Django, Flask, FastAPI, Pytorch, Tensorflow, LangChain

Experience

Kathmandu University Health Informatics Lab | *Researcher* Nov. 2022 – Present
- Researched Lower respiratory infections.
- Developed computer vision models to detect infections in radio images.
- Developed Computer-aided Diagnosis(CAD) system software on top of the vision models.

Nerox | *ML Engineer - Part Time* Jan. 2023 – June. 2023
- Developed computer vision models to detect several classes of liquors.
- Developed bottle counting script for each classes.
- Developed API and integrated with the Point-of-sale(POS) system.

Kathmandu University High Performance Computing Lab | *Research Assistant* Feb. 2022 – Nov. 2023
- Configured GPU clusters for deep learning.
- Administered parallel cluster nodes of the super computer.
- Deployed prototype of educational video conferencing platform in parallel nodes.

Projects

AyurEye | *Research and development*
Research prototype of CAD application that detected TB infection patterns in radio images with computer vision models.

MediOCR | *OCR*
Recognizes doctor's handwriting in medical prescription documents using CNN and LSTM-based Encoder-Decoder model.

RadNep | *Django + Flutter*
Educational radiology mobile application to render CT images and ask relevant questions to radiology students and professionals. The app is published in both Play Store and App Store.

Aagoo | *YOLO + Hardware + OpenCV*
A portable forest Fire detection device. It is a computer vision model to detect forest fires and provides a hardware-accelerated feedback system.

PdfBot | *Langchain + LLMs*
A web application that answers questions based on uploaded pdf, powered by open-source LLMs and Lang-Chain.

Research Publications

Advancing Tuberculosis Detection in Chest X-rays: A YOLOv7-Based Approach
Journal Paper published on MDPI Information

Comparing Lumbar Puncture Opening Pressure and Optic Nerve Head Height using AI
Conference paper on ARVO 2024 (ARVO Abstract 4050119)