Aavash Baral

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Education

Kathford International College of Engineering, BE in Computer Engineering

April 2021 - May 2025

• Coursework: Data Structure and Algorithms, Database Management System, Cloud Computing, Computer Network, Operating System

Projects

Facial Expression Detection using CNN

GitHub

- Developed a deep learning model for facial expression recognition using CNN, trained on the FER2013 data set to achieve an accurate classification 80% of human emotions.
- Tools used: Python, TensorFlow, Keras, OpenCV

Image Captioning in Nepali Language

GitHub

- Built an image captioning system for generating Nepali captions from images, combining EfficientNet as the encoder and a Transformer-based decoder, trained on the Flickr8k dataset.
- Tools used: Python, PyTorch, Transformers, EfficientNet

Nepali Text to Speech

- Fine-tuned a Coqui TTS model for generating high-quality Nepali speech from text, focusing on improving prosody and naturalness.
- Tools used: Python, Coqui TTS, Librosa

Technologies

Languages: Python, SQL, Javascript, C++, C

Technologies: Numpy, Pandas, Django, FastAPI, Tensorflow, AWS, Git/GitHub

Certifications

Machine Learning Specialization

Coursera, May 2024

Gained a deep understanding of core machine learning concepts, including supervised and unsupervised learning, neural networks, and practical implementation using Python and TensorFlow.

AWS Cloud Foundations

AWS Academy, July 2024

Acquired foundational knowledge in AWS cloud services, including core AWS offerings, architectural best practices and cloud security principles. Developed practical skills in deploying, managing, and scaling applications on AWS.

Data Analyst in Python

DataCamp, Oct 2024

Developed practical skills in Python programming for data analysis, including data manipulation, visualization, and statistical analysis.