SANJOG GAIHRE

sanjoggaihre0@gmail.com | +9779846924083 | Kathmandu, Nepal
github: sanjoggaihre | LinkedIn: sanjoggaihre0

EDUCATION

Khwopa College of Engineering (T.U), Libali, Bhaktapur *Nov 2018 - Mar 2023*
Bachelor of Engineering(B.E.) in Computer Engineering
Percentage: 74.75%
SpanTran Evaluation: 3.69 (128.5 equivalent credit hour)

Pioneers' English H. S. School, Waling, Syangja *Aug 2016 - Jul 2018*
+2 Science - National examination board
Grade : 3.1 GPA

WORK EXPERIENCE

LIS Nepal Feb 2024 - present
Associate Software Engineer
· Creating and maintaining ETL pipelines
· Working on Snowflake data warehouse
· Monitoring the data pipelines

Waling Multiple Campus Jul 2023 - Dec 2023
Assistance Lecturer
· Taught Database Management System and Numerical Analysis subjects for Bachelor of Education in Information Communication Technology
· Taught students to perform labs on DBMS

CodeRush Pvt Ltd. Nov 2022 - Jun 2023
Data Engineering Apprenticeship
· Learned about various data engineering concepts, AWS, SQL, Python, Git, NoSQL, hadoop, bigdata
· Worked on different data-related projects like YouTube Pipeline, Web crawling, Benford data analysis, and stock price notifier.

PUBLICATIONS

Over speed surveillance system using deep learning and distributed system 2023
The Journal of Engineering (On review)

Sanjog Gaihre, Aabhas Dhaubanja, Nabin Adhikari, Nitesh Das, Pratik Tamrakar,Binod Sharma
https://www.techrxiv.org/doi/full/10.22541/au.169588812.21333562 (preprint)

Soft body dynamics using mass-spring system and internal pressure model
(In process)

Sanjog Gaihre, Aayush Twayana, Supriya Khadka, Sanish Shrestha

TEST SCORES

IELTS : 7.5 (L-8, R-8, W-7, S-6.5)

GITHUB PROJECTS

Over speed surveillance system | Python, YOLO, OpenCV, Nextjs, Nodejs, RabbitMQ, Mysql

In this project, a web app was developed where we can upload the saved video or live stream from CCTV that captured the overspeed vehicle's Nepali license plate from the video/stream. During this, three YOLO models and one CNN model were developed, and the processing was done in a distributed manner.

Pneumonia prediction using CNN | Python, Numpy, Pandas, Keras

In this project, a CNN model was developed to detect the presence of pneumonia by seeing the chest X-ray. The datasets were used from Kaggle, and after pre-processing, a suitable CNN model was developed using AlexNet architecture.

Image caption generator using CNN-LSTM | Python, Numpy, Keras, LSTM, VGG16

In this project, a CNN-LSTM model was developed to produce the caption of the image. For training data, the Flickr8k dataset is used and a pretrained VGG-16 model is used to extract the feature of the image which is used for training the RCNN model, and a suitable RCNN model was developed.

Movie recommendation system | Python, Numpy, Pandas, Scikit-learn, Beautiful Soup

In this project, web scraping was used to create the datasets, which were subsequently filtered to construct a cluster. Subsequently, the user-inputted movie title is cross-referenced with the various clusters, and more movies within that cluster are suggested.

Automate chrome dino game using reinforcement learning | Python, OpenCV, gymnasium, PyTesseract, stable-baselines3

In this project, the agent operates within the environment of the Chrome Dino AI game. The agent receives rewards for successfully navigating each frame without crashing. However, if the game ends in a crash, a significant penalty is imposed. The agent is trained using the Deep Q-Network (DQN) model, allowing it to learn optimal strategies for avoiding obstacles and maximizing its performance in the game.

Gesture volume control | Python, Mediapipe, PyCaw

In this project, landmarks of the fingers are detected using a webcam, and the distance between the tip of the index finger and the tip of the thumb finger is used to regulate the volume of the system in real time.

Real-time air traffic visualization using Flightradar24 data | Python, Numpy, Pandas, Matplotlib, Selenium

In this project, a crawler was used to extract the links from the flightradar24 website. It then navigated to a different page to extract important information from that page. Then those data were filtered and visualized in different graphs.

Soft body dynamics using mass-spring system and internal pressure model | C++, OpenGL

In this project, the behavior of different soft bodies is simulated using openGL and C++. All those graphics rendering pipelines, shaders, and lights were implemented from scratch. Next, we animated the responses of soft body like objects to different forces.

Stock price notifier | Python, Flask, yfinance

In this project, the user entered the ticker symbol for the stock that they wish to keep an eye on, along with a threshold, phone number, email, and other details. If the user-specified threshold is exceeded by

the stock price, the user will be notified on a minute, hourly, or daily basis. The notification method selected by the user, email or SMS, will be used.

SKILLS

Programming Languages	Python, SQL, C/C++ , HTML, CSS
Domains	AI, ML, NLP, Deep Learning, Computer Vision, Data Science
Python Libraries	Pandas, Matplotlib, Numpy, Keras, Tensorflow, sckit-learn, Flask, OpenCV,BeautifulSoup, Selenium, stablebaselines3
Software & Tools	AWS, GitHub, Google Colab, VS code, Jupyter, LaTeX, , Power BI
Others	Apache Airflow, SSIS, Slack, Trello, ClickUp

TRAINING AND CERTIFICATIONS

Unsupervised Learning, Recommenders, Reinforcement Learning - *DeepLearning.AI*	*2024*
Introduction to Computer Vision and Image Processing - *IBM*	*2024*
Advanced Learning Algorithms - *DeepLearning.AI*	*2024*
Supervised Machine Learning: Regression and Classification - *DeepLearning.AI*	*2024*
Introduction to Data Science in Python - *University of Michigan*	*2024*
AWS Certified Cloud Practitioner - *AWS*	*2023*
Introdution to Data Engineering - *IBM*	*2023*
Joining Data in SQL - *DataCamp*	*2023*
Introduction to Big data and Hadoop - *The Great Learning Academy*	*2023*
Kafka Basic - *The Great Learning Academy*	*2023*
Introduction to Apache Hive - *The Great Learning Academy*	*2023*
Introduction to PowerBI - *DataCamp*	*2023*
Basic Python Training - *Khwopa College of Engineering*	*2020*

ACTIVITIES

Life-time Member, Nepal Red Cross Society (NRCS)	*2024*
Member, Leo Club of Waling City	*2023*
Second Runner Up, Basketball Competition in Khwopa college of Engineering	*2023*
First Runner Up, Local Badminton Tournament in Syangja	*2022*
Trainer, "The Application of ICT in Education," *Waling Multiple Campus, in assistance with the University Grant Commission*	*2020*
Volunteer, Data Digitization Project - *Khwopa College of Engineering*	*2019*
Member, Junior Redcross Society PEBS.	*2015*