EDUCATION

MS in Computer Science | University of Toledo, Toledo, OH
BE in Computer Engineering | Tribhuvan University, Kathmandu, Nepal

2021 – May 2023(Expected) 2013 – 2017

WORK HISTORY

Research Assistant - University of Toledo, Toledo, OH

Jan 2022- Current

Health Care Analytics: Research Collaboration with University of Toledo medical center for analyzing heart surgery data of a patient.

- Analyzed vital characteristics of the patient such as O2 level, Heart Rate Variation, Blood Pressure, Fat mass, Bone mass, and so on.
- Using ML model to predict whether the patient needs intervention from a doctor based on the patient's latest data.

Teaching Assistant - University of Toledo, Toledo, OH

August 2021 - Current

- Conducted Lab sessions and actively tutored students for EECS 1100: Digital Logic Design.
- TA for EECS 2520: Discrete Structures.
- Maintained an atmosphere of academic learning and advancement to facilitate learning and development of critical thinking skills.

Full Stack Developer – G. and D. Developers Pvt Ltd., Kathmandu, Nepal

May 2020 - July 2021

Tools: Django, React, PHP, JavaScript, MySQL, HTML5/CSS, AJAX

- Developed a backend engine for GD Shop Nepal
- Developed a portal for freelancing content writing job seekers and employers.

Software Engineer – FOCUSONE Nepal Pvt.Ltd, Kathmandu, Nepal

July 2018 - May 2020

Tools: PHP, JavaScript, MySQL, HTML5/CSS, Dialogflow API

- Developed Vehicle Tax Calculator "VTAX" for Department of Transport Management (DOTM), Nepal.
- Developed Interactive Chatbot using Dialogflow API.
- Developed dynamic website using processwire CMS & PHP.
- Developed database functions, scripts, stored procedures and triggers to support application development.

SKILLS

Languages: Python, C++, C, Java

Web Development: PHP, JavaScript, MYSQL, HTML/CSS, jQuery, AJAX, React

Machine/Deep Learning: TensorFlow, Keras, Computer Vision, NLP, CNN, LSTM, GAN, Transformer

Others: Android App Development, Git, Linux, Docker, OpenCV

PROJECTS

Maritime Vessel Prediction | Python, NumPy, Scikit-Learn, Pandas, Seaborn, Matplotlib, K-Means Clustering Maritime Vessel Prediction from Automatic Identification System(AIS) Data.

- Developed a model to identify the trajectory Maritime Vessel from AIS data using the Unsupervised clustering technique.
- Used latitude, longitude, speed, and angle of a vessel to derive a model that was able to predict the trajectory with great accuracy.

Sentiment Analyzer | Python, Tensorflow ,Keras, LSTM, Flask,Word2Vec, NLP *Sentiment analysis of newspapers articles*.

See Project

- Developed the News Sentiment Analyzer using Stacked Bidirectional Long short-term memory(BiLSTM) model.
- Developed a Flask app to display the live sentiment of News Published in English Newspapers of Nepal.

ColorGAN | Python, Tensorflow, Keras, CNN, GAN, U-Net

See Project.

Deep neural network model for colorizing grayscale images.

Colorizing Grayscale Photos using Conditional Generative Adversarial Networks(cGAN) model.

NeuroPlay | Python, NumPy, Neural Networks, Genetic Algorithms

See project

Evolving birds (represented by neural networks) to play the game on its own.

- Evolving a population of neural networks to play a game alike flappy bird on its own.
- Modelled the neural networks, trained them using genetic algorithm only using NumPy.