Ishparsh Uprety

Associate Machine Learning Engineer

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EXPERIENCE

Bottle Technology, Jhamsikhel — *Associate ML Engineer*

Sept 2021 - PRESENT

Worked on Image pre-processing, Noise removal, feature extraction techniques & built web application for broker company with auto fill feature by implementing OCR on Citizenship, Bank Cheque, and BOID information

Performed research on efficient OCR tool available on AWS, Google Cloud, NanoNets, EasyOCR & Tesseract

Designed a model to extract image from citizenship and enhanced them to calculate matching probability with selfie images

Designed a NER model using Spacy 3.0 as well as for better result annotation of data was also implemented.

Bottle Technology, Jhamsikhel — *ML Intern*

Spet 2021 - Nov 2021

Created web application that predicts age, gender, sentiments using S3, Lambda and Boto3

Developed Corona cases visualizing and predicting web applications and worked on various AI ML projects on Sagemaker

Created docker container on AWS that remove the noises from image using S3, Lamda and Boto3

Three Monks Private Limited, Thimi — *Java Intern*

June 2018 - August 2018

Build a simple form application using Spring MVC

Learned about Object Oriented Programming i.e. got familiar with abstraction, encapsulation, polymorphism and inheritance.

SKILLS

Python
Machine Learning
Deep Learning
SQL
AWS

Framework & Tools

- **OpenCV**
- **Keras/Tensorflow**
- **Scikit-learn**
- **Sagemaker/Jupyter**
- **Pandas, Numpy, Scipy**
- **Git (Github/Gitlab)**
- **Flask & Rest API**
- **Linux & Windows 10**

LANGUAGES

English : Proficient

Nepali: Native

Hindi: Fluent

EDUCATION

IIMT University, Meerut,India — *Bachelors of Technology*

August 2017 - July 2021

Bachelors of Technology in Computer Science with aggregate 83.5%

Trinity International College, Kathmandu — *12th*

2015-2017

Arunima Higher Secondary School, Kathmandu — *10th*

2015

PROJECTS

Corona Prediction from X-Rays of Chest —

• Tools used : Python, OpenCV, Keras, Tensorflow, Plotly

• Designed convolution network that inputs a X-ray images of lungs and outputs whether there is white patches on the X-Ray indicating pneumonia

• Developed a model capable of predicting multiple faces with or without masks with validation accuracy of 0.87

Image Alignment —

• Tools used : Python, OpenCV, Keras, Tensorflow and Tesseract

• The scanned image to extract information from it, detecting and correcting skew is crucial. Also, some images get rotated by 90 degree and plus which can't be detected using skew

OCR —

• Tools used : Python, OpenCV, EasyOCR, Spacy

• At first the image is enhanced using opencv where denoising is done, afterwards it is enhanced using histogram equalizer

• Extraction process is done using EasyOCR though it does not produce fine output

• Data Annotation is done where the labeled data could be identified

• Then, it is trained using Spacy to find out the best result.