# Santosh Adhikari

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PASSIONATE AND SELF DRIVEN MACHINE LEARNING ENGINEER WITH 4+ YEARS OF EXPERIENCE WHO EXCELS AT DEVELOPING MACHINE LEARNING POWERED SOFTWARE SYSTEMS AND APPLICATIONS

# **EDUCATION**

## UNIVERSITÉ DE BOURGOGNE

MASTERS IN COMPUTER VISION AND ROBOTICS(VIBOT)
2022-2023 | Le Creusot, France

#### TRIBHUVAN UNIVERSITY

BACHELOR IN ELECTRONICS AND COMMUNICATION ENGINEERING 2018 | Kathmandu, Nepal

# **SKILLS**

#### **PROFICIENCY**

- Python Tensorflow Pytorch Keras
- Flask-API FAST-API
- Numpy Pandas Opency
- Docker AWS EC2, S3
- MongoDB PostgreSQL
- •Socket-Programming •QT •Tkinter
- •GIT •Linux

#### **FAMILIARITY**

• C++ • C • Django • Kubernetes • Assembly language • Bash Script

# RESEARCH PAPERS

- TOMATO PLANT DISEASES DETECTION SYSTEM USING IMAGE PROCESSING) Paper
- Virtual Try-on using Image Translation

# **ACHIEVEMENTS**

- Second winner at ActInSpace Hackathon, Besançon 2022
- President of Robotics Club ROBOKATH 2017-2018
- 1st runner-up in Hex-Software competition 2017
- Selected in startup incubation(Kathmandu Maker Faire 2016) News

## **EXPERIENCE**

#### **PARLAPP** IMACHINE LEARNING ENGINEER

May 2022 - Current | Remote

- Designed and implemented scalable ML APIs and background workers for social knowledge-marketplace where user can communicate with people having similar passions using TF-serving, BERT, FastAPI, Celery, Redis, Docker, and PostgreSQL
- $\bullet$  Build query to tag algorithm through which top N heterogeneous tags can be retrieved from thousands of data-points.

## **IKEBANA SOLUTIONS LLC** |S. COMPUTER VISION ENGINEER

Nov 2018 - Sept 2022 | Kathmandu, Nepal

- Designed, trained, and deployed variant of deep learning models for many industrial applications like satellite image segmentation, object tracking & re-identification, background removal, information retrieval from documents and activities classification
- Build attendance system using facial recognition for 350+ employees and integrated gesture based user interface for dashboard navigation
- Build CCTV based vehicle detecting and tracking application for SoftBank 5G network project

# TECHNICAL PROJECT

### DROWNING PREVENTION SYSTEM PROJECT

 Worked as ML project lead to build IoT based drowning prevention system that can track people drowning inside swimming pool and send notification to user using raspberry pi, LSTM, object detection/tracking, Flask-SocketIO, AWS s3, twillio, google Firebase and RTMP streaming.

#### VIRTUAL TRY ON 2D DEMO VIDEO

 Build a virtual try on application using Generative Adversarial Network(image translation) where users can try desired cloth virtually on 2D image of their body

#### URINE STRIPE ANALYSER DEMO VIDEO

- Developed mobile app to approximate urine test strip parameters using image processing
- Tech stack: Android, Opency, Java

## TRAFFIC DENSITY MEASUREMENT DEMO VIDEO

 Trained object detection and tracking application for measuring vehicle flow and deployed in embedded device to control the signal of traffic light

# MASS SURVEILLANCE ON VIDEO DATA

 Build surveillance system with following features: Face detection/recognition, facial mask detection, human activities classification, person re-identification, attribute classification, object search/tracking, age/gender/emotion classification