ANUPAM WAGLE

Kapurdhara-26 | Kathmandu, 44600 | +9779860901204

Email: anupam.wagle413@gmail.com

Contact Details: +9779860901204, 014955674

LinkedIn: https://www.linkedin.com/in/anupam-wagle-203296169/

PROFESSIONAL SUMMARY

- Field of Expertise: Machine Learning, Deep Learning, Computer Vision, Web Development, Natural Language Processing, Large Language Models
- Software Skills: C/C++, Python, NumPy, TensorFlow, Pandas, PyTorch

EXPERIENCE

- **Machine Learning Engineer** at **LogicTronix Technologies**
  (June 2023 – March 2024)
  - Worked to build various 2D object detection and classification models.
  - Worked on 3D detection using Lidar.
  - Worked on Carla simulation and extracted data similar to that of KITTI.
  - Worked on YOLOv5 and YOLOv7 for KV260.
  - Worked on Machine Learning Acceleration for edge devices (Xilinx boards).
- **Machine Learning Engineer** at **ICEBrKr, Virtly Group**
  (March 2024 - Present)

EDUCATION

- Bachelor in Engineering
  (2018-2023)
  Computer Engineering
  Kathmandu Engineering College(Site)
  Kalimati, Kathmandu
- Intermediate Level
  (2015-2017)
  Science Faculty, HSEB
  National School of Sciences (NIST)
  Lainchaur, Kathmandu

PROJECTS

3D Object Detection for ADAS system

- Developed a model for 3D detection for pedestrians, Cars, and Cyclists using the KITTI dataset.
- Used PyTorch framework.

Image Super-Resolution using Deep Learning:

- Implemented a method to increase the image resolution by dividing it into high and low frequencies

- Processed the low-frequency image to enhance important details and merged it with the high-frequency image to create a higher-resolution image

OCR for Mathematical Computation:

- Developed an OCR for a mathematical computation program using TensorFlow, OpenCV, and Django
- Used character recognition model, Sympy was used to give solutions to input equations.
- Used desmos for plotting outputs of the equations.

Malaria Cell Detection using VGG-19 and Inception-Resnet:

- Implemented a malaria cell detection using VGG-19 and Inception-resnet and a comparison was made.
- Primarily used to identify uninfected and parasitized cells.
- Also, implemented Class Activation Mapping for the parasitized cell.

Person Counting and Tracking using CenterNet and Kalman Filter

- Developed a model for person detection using CenterNet.
- Custom Data preparation for required scenario – down-facing camera at entry.
- Used Kalman Filter for tracking persons entering and exiting the bus.
- Used PyTorch and KV260 board for deployment.

ASSOCIATED ORGANIZATIONS

- Executive Member of KEC IT Club
- Member at Facebook Developer Circle: Kathmandu
- Member at Google Developer Group: Kathmandu

HONORS/ACHIEVEMENTS

- Best Idea of YOMARI Code Camp at LOCUS 2020

PUBLICATIONS

- Activation function & its effect analysis with AMD Vitis AI: Link
- YOLOv5 Quantization & Compilation with Vitis AI 3.0 for Kria: Link

REFERENCES

- Er. Sudeep Shakya: Head of Department of Computer Engineering, Kathmandu Engineering College
  sudeep.shakya@kecktm.edu.np
- Er. Mahesh Singh Kathayat: Academic Advisor, Department of Computer Engineering, Kathmandu Engineering College
  ms.kathayat@kecktm.edu.np