Uday Girish Maradana

Machine Learning/ Robotics Engineer

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Web Presentation: <https://tinyurl.com/udaygportfolio>

# SKILLS

Python, C++, Machine Learning, Deep Learning, Computer Vision, Reinforcement Learning, LLM’s, 3D Computer Vision, Robotics, Cloud Computing - GCP, AWS, Azure, Unity, Blender, Edge Computing.

# CERTIFICATIONS

* GCP Professional ML Engineer
* AWS ML Speciality
* AWS Solutions Architect Associate
* GCP Cloud Associate Engineer
* Tensorflow Developer Certificate

# **EXPERIENCE**

## ELPIS Lab (WPI) *- Graduate Researcher*

JAN 2024 - PRESENT

* Working on improving Robot grasping with End-End reinforcement learning combined with vision.

## Perception and Autonomous Robotics Group (WPI) *- Graduate Researcher*

AUG 2023 - FEB 2024

* Worked on improving optical flow pipeline for Aerial Vehicle Navigation. (Autonomous Drones)

## Tiger Analytics *- Machine Learning Engineer (Sr./L3)*

JAN 2022 - JUL 2023

* Assisted the organization in obtaining Google Cloud ML Specialization certification by gathering proof and delivering a 4-hour technical presentation on their behalf.
* Led a team of 3 ML Engineers in creating an End-to-End retrainable MLOps pipeline with AWS.
* Led a team of 4 ML Engineers in orchestrating and automating the training and inference pipeline deployment for a Price Elasticity Model using MLOps principles on GCP.
* Contributed to the MLOps team in developing a Real-time Scalable and Automated Pipeline for  
  Anomaly Detection in Authentication systems within the field of Cybersecurity.

## Freelance *- Machine Learning Engineer*

AUG 2021 - JAN 2022

* Developed a News Recommendation system Pipeline on Vertex AI for CodeRythm Technologies.
* Developed components for the Information extraction platform for a Legal AI product at DeepJudge.
* Analyzed data from a Retail Fashion Business client at Aays Analytics, constructing a pipeline for Automated Scheduling and inventory management using ML Modelling.
* Developed an ML-based API at Applied Computing for Virtual KYC automation, utilizing Cloud Text extraction APIs, OpenCV, and NLP libraries to identify keywords.

## New Space Research & Technologies *- Machine Learning Engineer II*

FEB 2021 - JUL 2021

* Developed a Deep learning based Targeting and Navigation platform utilizing feature matching algorithms like Superpoint, LoFTR and Superglue.
* Led the exploration of shifting the current inference platform from Raspberry Pi to CUDA-based platforms to enhance platform inference speed in the Platform Shift project.

## Quantiphi Analytics Solutions *- Machine Learning Engineer*

MAY 2019 - FEB 2021

* Contributed to the Solutions Research/POC team, enhancing the firm’s capabilities in Hybrid Deployment scenarios. Projects involved analyzing television videos with Google Cloud AI-based APIs for character/sentiment impact on viewership, creating an AI-based Gym Assistant, and managing Web Page and Doc Translation using Google APIs and a Custom Open source deep learning approaches.
* Developed a scalable package for NLP related tasks to deploy and benchmark performances of Roberta, OpenGPT-2 and Longformer.
* Implemented a CV pipeline for Person Re-Identification and security, integrating DL concepts like Object Detection, Tracking , Person Re-identification and Image search using FAISS and Elastic Search.
* Developed a Computer Vision pipeline for safety in parks and resorts,incorporating deep learning concepts such as Object Detection, Tracking and Pose estimation and deployed using TensorRT /Triton.

## Storilabs Systems Technologies *- Machine Learning Intern*

JUN 2018 - OCT 2018

* Implemented a Computer Vision pipeline for real-time object search, enabling the identification, live tracking, and historical tracking of objects across multiple locations.

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# EDUCATION

## MS in Robotics Engineering *- Worcester Polytechnic Institute*

AUG 2023 - MAY 2025

## MA in Philosophy *- Indira Gandhi National Open University*

OCT 2020 - DEC 2022

## PG Diploma in AI and ML *- University of Hyderabad*

MAR 2021 - MAR 2022

## B.Tech Mechanical Engineering *- National Institute of Technology, Calicut*

JUN 2015 - MAY 2019

# PUBLICATIONS - <https://udaygirish.github.io/publications/>

# PROJECTS - <https://udaygirish.github.io/projects/>