Uday Girish Maradana

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EDUCATION

Worcester Polytechnic Institute	*Worcester, MA (USA)*
MS in Robotics Engineering	*Aug 2023 – May 2025 (Exp)*
National Institute of Technology, Calicut	*Kerala, India*
B.Tech Mechanical Engineering	*Jun.2015 – May.2019*

EXPERIENCE

Machine Learning Engineer - Tiger Analytics *(Jan 2022 - Present), India*
- Led a team of 3 ML Engineers to design an End-to-End retrainable MLOps pipeline on AWS
- Led a team of 4 ML Engineers in orchestrating and automating the training and inference pipeline deployment following MLOps principles on GCP.
- Worked as a part of the MLOps team to develop a Real-time Scalable and Automated Pipeline for Anomaly Detection in Authentication systems.
- Led the development of a Hybrid IOT architecture for easier integration with sensors and Real life Edge Deployment of ML Models on Microcontrollers using Open Source SDK's and Tiny ML.

Freelance ML Engineer/Data Scientist *(Aug 2021 - Jan 2022), India*
- **DeepJudge - Aug 2021-Jan 2022**: Worked on developing multiple components for the Information extraction platform for the Semantic search component of a Legal AI product.
- **Aays Analytics - Aug 2021- Jan 2022**: Analysed the data from a Retail Fashion Business client and built a pipeline for Automating Scheduling and managing inventory using ML Modelling.
- **Applied Computing - Sep 2021- Nov 2021**: Developed an ML-based API that can help in Virtual KYC automation with the help of Cloud Text extraction APIs, OpenCV, and NLP libraries to identify keywords.

Machine Learning Engineer II - New Space Research Technologies *(Feb 2021 - Jul 2021), India*
- Developed a Deep learning based Targeting and Navigation platform using Deep learning based feature matching algorithms such as Superpoint, LoFTR, SuperGlue.
- Led the exploration of shifting the current inference platform which is Raspberry Pi to CUDA based platforms to speed up the platform inference

Machine Learning Engineer - Quantiphi Analytics Solutions *(May 2019 - Feb 2021), India*
- Worked in a team to develop firms' capability in Hybrid deployment scenarios, especially edge/cloud inference using Nvidia SDK such as Deep Stream, TLT, Clara, TFlite, and OpenVino.
- This project involves developing a scalable script to deploy OpenGPT-2/Roberta/Longformer in a Kubeflow-based pipeline and benchmark the model performance.
- CV pipeline for Re-identification and security. This project involves working on deep learning concepts such as Object Detection, Object Tracking, Person Reidentification, and Image Search using FAISS and Elastic Search.
- CV Pipeline for Safety in Parks, Resorts, etc. This project involves working on DL concepts such as Object Detection, Tracking, and Pose Estimation and deploying them using the Triton Platform.

Machine Learning Intern - Storilabs System Technologies *(Jun 2018-Oct 2018),India*
- Computer Vision Pipeline for real-time Object Search CV Pipeline for Real-time object search is for identifying and live tracking of objects across multiple places and also tracking the history.

PUBLICATIONS

- Uday Girish, M et.al. "RIGGU: A Semi-humanoid Robot Platform for Speech and Image Recognition" in Intelligent Systems, Technologies and Applications, 2020 ⏷ Paper ⏵ Video.

PROGRAMMING SKILLS

- **Languages/Technologies**: Python, C, C++, SQL, HTML, R, Cloud Computing(GCP, AWS,Azure), CV, NLP, RL, Robotics, Edge Computing, Speech Tech, Network Security, Quantum Computing, Databases, Microservices
- **Frameworks/Softwares**: Tensorflow, OpenCV, Scikit-Learn, Pytorch, CUDA, cuDNN, ROS, Deepstream, Matlab, COMSOL,SolidWorks, Ansys,FluidSim, CREO, MasterCam, Proteus, Unity, Blender, Octave, Arduino, Edge Devices, GitHub, Jenkins, ARM, Gazebo, OpenAI Gym