MOHIT ARVIND KHAKHARIA

VP SOFTWARE | SR. ML & ROBOTICS ENGINEER

SKILLS

Machine Learning | Robotics | Full Stack Development | Data Science | Computer Vision

INDUSTRY

Autonomous Vehicles | Maritime Robotics | E-Commerce | Virtual Reality

FIELD OF INTEREST

- Machine Learning
- Computer Vision
- Robotics
- Autonomous Vehicles
- E-Commerce
- Deep Learning
- Software Project Management
- Point Cloud Processing
- NLP

FRAMEWORKS

- Tensoflow 2.x
- PyTorch
- ROS
- Open CV
- Numpy
- Scikit
- Pandas
- NoSQL
- WebRTC
- GCP - BigQuery
- Keras
- ROS2
- PCL
- PIL
- SciPy
- Pandas
- Async IO
- Node JS
- Flutter
- GCP - Vertex AI

LANGUAGES

- Python3.x | Javascript | C++ | Cadence

CONTACT

Toronto, Canada

mohitakhakharia@gmail.com

(+1)(647-261-8144)

/in/mohitkhakharia/

WORK EXPERIENCE

Unity Technologies, Toronto, Canada

SR. MACHINE LEARNING ENGINEER **[2022 - 2023]**

- Synthetic data domain gap bridging efforts: Helping Unity's clients to bridge the domain gap between real world and synthetic data.
- Photogrammetry: Building and deploying Unity's 3D reconstruction app called "Replica" to create a 3D model of an object given a plethora of data including RGB images, lidar point clouds and camera parameters. Also, worked on a NERF based pipeline to do the same on free hand captured images.

Buffalo Automation, New York

VP SOFTWARE | MACHINE LEARNING ENGINEER **[2016- 2021]**

- Architected and led engineering teams for implementation of perception, estimation, planning, and actuation algorithms for autonomous maritime vessels.
- Led lidar and radar teams to implement global cost map population in ROS2 to aid path-planning algorithms like A* and RRT*(Rapidly-exploring random trees).
- Led teams that implemented neural networks for real-time offline image recognition and object classification using quantized CNNs on TPUs.
- Implemented Neural Networks for obtaining the depth of objects from stereoscopic images for aiding a self-navigating maritime system.
- Designed and implemented neural networks to differentiate water from the sky, land, and non-navigatable objects using quantized instance segmentation.
- Architected solutions and led offshore teams to implement SLAM algorithms like Cartographer and SLAM Toolbox for outdoor environments and architected their implementation on edge devices. Sensors used: Velodyne, Ouster, Quanergy, Cepton, Livox, Furuno, and Lowrance.

Sirius Computer Solution(Acquired by CDW)

SOFTWARE DEVELOPER **[2013 - 2016]**

- Integrated of IBM Watson cognitive computing services like sentiment analysis, personality insights service, face detection to existing projects.
- Project Lead for Developing E-Commerce web application for Fisher-Price, Barbie, and Hot Wheels.
- Developed and maintained E-Commerce web applications for Tommy Hilfiger, Calvin Klein, and SpeedoUSA

PATENTS

- Deep learning and intelligent sensing system integration(US10782691B2).
- Training a deep learning system for maritime applications(US20200050893A1).
- Sensor system for maritime vessels(US20200047861A1).
- Deep learning and intelligent sensing systems for port operations(US10895802B1).

EDUCATION

University at Buffalo, New York
MS in Computer Science | 2016-2017
Specialization - Artificial Intelligence and Robotics

SSN College of Engineering
Bachelor of Technology - Information Technology | 2009 – 2013,