### KRISHNAKUMAR N

+91 9061131347

krishnakumar.n@iiitb.ac.in forkriz@gmail.com

linkedin.com/in/krishnakumar-n-5691bbb8

**Git**: https://github.com/aiatoz

Sreenandanam, Padanilam PO, Nooranad, Alappuzha, Kerala

PIN: 690 529

#### **SKILLS**

#### HARD SKILLS

- LiDAR Point Clouds
- Machine Learning
- LLMs & Prompt Engineering
- Oracle B2C Service
- Oracle Field Service Cloud
- Python, PHP, jQuery
- SQL

#### **SOFT SKILLS**

- Problem Solving
- Client Interaction
- Collaboration
- Negotiation
- Leadership & Project Management
- Analytical Thinking

#### WORK EXPERIENCE



#### Full Time - 2 Years 4 Months

#### Developer

#### Nov 2022 to Apr 2023 | 6 months

Skills: Oracle B2C Service, Oracle Field Service Cloud, PHP, JavaScript, jQuery, Communication, Leadership

#### **Associate**

#### Oct 2021 - Nov 2022 | 1 yr 2 months

Skills: Oracle B2C Service, Oracle Field Service Cloud, Oracle Policy Automation, PHP, JavaScript, jQuery, Customer Focus, Attention to Detail

#### Trainee Associate

#### Dec 2020 - Oct 2021 | 11 months

Skills: Oracle B2C Service, Oracle Field Service Cloud, PHP, JavaScript, JQuery

#### **PROFILE**

Pursuing Master of Science in Computer Science at IIIT, Bangalore (2024–Present), with research focused on LiDAR point clouds, machine learning, and computer vision. I also have practical experience in NLP and generative AI through hands on Python projects.

As a CRM Developer/Consultant, I've 2.5 years of work experience with expertise in both front end and back end development. I served as Lead Developer, overseeing project ownership, mentoring teams, and leading solution design while coordinating across cross functional teams, including Oracle B2C Service, mobile apps, UI/UX, and testers.

#### **KEY PROJECT HIGHLIGHTS**

#### Machine Learning Projects (Ongoing)

#### i) 3D & Computer Vision:

#### **Point Cloud Analysis & Segmentation**

Working on a LiDAR Point Cloud benchmarking dataset. Analyzed existing datasets like Semantic3D, DALES, ParisLille 3D etc. for insights. Learned tools and libraries such as CloudCompare, MeshLab, and Open3D. Tested deep learning models like KPConv, RandLANet, GCNs etc. to aid the segmentation task. The objective is to create, annotate and benchmark large scale point cloud datasets, tackling issues in Point Cloud processing and analysis. Also recently started working on Digital Twins and 3D reconstruction workflows using point clouds, with a focus on Neural Surface Reconstruction (NKSR) for realistic surface modeling.

#### Visual Question Answering & Other Deep Learning Projects

Visual Question Answering using a transformer based late fusion architecture. Employed BERT and ViT for feature extraction and MLP for prediction. The main objective was to compare the standard architecture against the same pipeline with quantization, using both linear probing and fine tuning techniques

Apart from this, implemented a couple of vision-based projects for object recognition, detection, and tracking using deep learning models

Skills - Cloud Compare, OpenCV, Deep Learning, Transformers, Python

#### ii) Natural Language Processing & Large Language Models:

- LLM Based Web Querying Engine
- LLM Retrieval Augmented Generation
- Indic English mix AI assistant
- YouTube Querying Engine

Open source models such as Mistral 7b and Llama 2 were used as the base LLMs for the LLM projects. Data sets used are public and custom scraped data sets accordingly.

**Skills** – Large Language Models, Retrieval Augmented Generation, Machine Learning, NLP, Python, Web Scraping

#### **EDUCATION**

Master of Science by Research

# INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY (IIIT), BANGALORE

2024 - Present

Field: Computer Science

Supervisor : Dr. Jaya Sreevalsan Nair Area : LiDAR Point Clouds, Machine

Learning, Computer Vision

Bachelor of Technology
APJ ABDUL KALAM
TECHNOLOGICAL UNIVERSITY

2016 - 2020

Field: Computer Science & Engineering

**CGPA: 8.55** 

Higher Secondary Education
GOV. BOYS HSS, KAYAMKULAM

2013 - 2015 Computer Science **Percentage : 90.83%** 

 Higher Secondary Education PADANILAM HIGHER SECONDARY SCHOOL

2013

Percentage: 100%

#### **ACHIEVEMENTS**



**Spot Award** 

November - 2022



Techathlon 2020 - 3rd Runner-up

#### **LANGUAGES**

**English** 

Hindi

Malayalam

## Human character map generation using various machine learning techniques (Academic Project - 6 months)

Implemented model analyzes Instagram's ad data through machine learning, employing natural language processing (word embedding), hierarchical clustering, and Naive Bayes. It produces a radar graph to depict individual characteristics and includes a comparison algorithm to find the best match for each user based on their interests.

Role - Team Leader, Developer

Skills - Machine Learning, NLP, Python, Web Scraping

#### Condo Automation - Primech Services and Engrg Pte Ltd, Singapore (6 Months)

Primech's HomeHelpy - Condo Automation is a standalone B2B project designed to automate operations for service providers offering cleaning solutions to their clients. The project includes a customized AgentWeb interface for operational executives, a tailored web portal for managing agents to oversee activities and utilize various functionalities, and a bespoke mobile application for agents and supervisors to track and manage all activities.

#### Key contribution / Highlights

- Involved in requirement gathering, system design, and the development of the Managing Agent's Web Portal, which includes service tracking, concern raising, feedback flows, and various customizations.
- Customized AgentWeb with modules for contract, resource, and service management
- Managed collaborations among multifunctional teams, and facilitated customer training sessions
- Mentored and provided training to freshers

#### Primech Services and Engrg Pte Ltd, Singapore (20 Months)

Primech's HomeHelpy is an E-commerce platform offering services like home cleaning, air conditioning maintenance, and disinfection. They provide a web portal and mobile app with various functionalities, along with a backend client for agents to manage customers, resources, tasks, tickets, and operations.

Role - Developer

**Skills** – Oracle B2C Service, Oracle Field Service Cloud, PHP, jQuery, Client Handling

#### **Key contribution / Highlights**

- Client handling and problem solving on a day to day basis, involved in the development of Disinfection Service flow, including areas like booking and rescheduling
- Major part of campaign discussions and implementations, including bookings, promo code generation/redemption, and custom mailing solutions.
- Worked on the implementation of Traditional Chinese for the system and the design and development of the quotation booking flow.