**KARTHIK RENGANATH R**

| [karthikrenganathr93@gmail.com **|** www.linkedin.com/in/karthikrenganathr **|**](about:blank)

**|** github.com/Karthikrenganathr |

**Skills**

* **Programming languages:** C, C++,Java,Python,SQL
* **Technologies:** Git, MySQL
* **AWS:** EC2,IAM,RDS,S3
* **Machine Learning Skills:** Supervised Machine Learning, deep learning, Unsupervised Learning, Recommenders, Reinforcement Learning.

**Certificates**

* **Introduction To Industry 4.0 And Industrial Internet Of Things**

NPTEL | IIT Kharagpur | 78% | April 2024

* **Statistical Learning For Reliability Analysis**

NPTEL | IIT Kharagpur | 76% | October 2023

# **Programming, Data Structures, And Algorithms Using Python**

NPTEL | 83% | Chennai Mathematical Institute | April 2023

### **Supervised Machine Learning**

### Regression and Classification

DeepLearning.AI & Stanford University|coursera | July 2023

### **Advanced Learning Algorithms**

DeepLearning.AI & Stanford University|coursera | August 2023

### **Unsupervised Learning, Recommenders, Reinforcement Learning**

DeepLearning.AI & Stanford University|coursera | September 2023

**Education**

* **RSK Higher Secondary School**

HSLC – 91.2% | SSLC – 88.2%

2007-2021

* **SASTRA University**

B.Tech Computer Science and Engineering (Artificial Intelligence and Data Science) l| CGPA – 7.75

2021 - 2025

**Projects**

**Project: Moving Object Detection Using Convolutional Neural Networks:**

* **Description:** Designed and implemented a Convolutional Neural Network (CNN) architecture featuring encoder and decoder components to detect moving objects in real-time video streams.
* **Dataset:** Trained the model using the CDNet 2014 dataset, encompassing various environmental conditions and scenarios.
* **Image Processing:** Employed MATLAB for post-processing neural network outputs to refine image types and extract moving object details.
* **Vehicle Counting:** Integrated AWS Rekognition for accurate vehicle count estimation based on detected objects in the video feed.
* **Skills Demonstrated:** Deep Learning, CNN Architecture Design, Image Processing, Dataset Management, AWS Integration, MATLAB Programming

.

### **Machine Learning Pipelines with Azure ML Studio:**

**Description:** Developed and deployed end-to-end machine learning pipelines using Azure ML Studio, focusing on automating model training, evaluation, and deployment processes.

**Key Activities:**

* Designed and configured data preprocessing steps to clean, transform, and feature engineer datasets.
* Implemented various machine learning algorithms to build predictive models for classification or regression tasks.
* Orchestrated pipeline workflows to automate model training, hyperparameter tuning, and cross-validation.
* Integrated Azure ML pipelines with cloud services for scalable and efficient model deployment and monitoring.

**Technologies Used:** Azure ML Studio, Python, Data Preprocessing, Machine Learning Algorithms, Pipeline Orchestration, Cloud Integration.

**Skills Demonstrated:** Pipeline Automation, Data Engineering, Model Development, Cloud Computing, Scalable Deployment, Collaboration with Cloud Services.