JEROME FRANCIS

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EDUCATION

T.K.M. College of Engineering, Kollam

Bachelor of Technology (B.Tech)

Department of Computer Science and Engineering(CSE)

Montfort Senior Secondary School, Ashok Vihar (New Delhi)

 $12\mathrm{th}$ Higher Secondary Examination (Science), CBSE

10th Secondary Examination, CBSE

March 2016

August 2016 - 2020 CGPA : 9.3/10

Overall Percentage: 95 CGPA: 9.6/10

EXPERIENCE

Ignitarium Technology Solutions P. Ltd., Kochi

Machine Learning Intern

June - July 2019

· Analyzed different models for Rail Defect Detection using Semantic Segmentation, and developed rail gap measurement feature using Image Processing Advisor: Jerin Antony, ML Engineer, Ignitarium

Radix Info Solutions P. Ltd., New Delhi

July 2018

Summer Intern

· Learned Machine Learning and Deep learning algorithms and worked on classification of messages.

PROJECTS

Taxi task using Q-learning Sep 2019

Implemented the taxi task using Temporal-difference technique of Q-learning, where the task is to pickup and drop the passenger from source to destination by using taxi as an agent. Gym's taxi-task environment was used.

Video based RailGap measurement July 2019

Developed a feature to measure rail gaps of rail tracks present in video frames using Semantic segmentation. This measurement is used to detect gaps which exceed a threshold value. Three modes of measurement namely, center-to-center mode, outer-rail to outer-rail mode and inner-rail to inner-rail mode of railway tracks. This project was a part of internship done in July 2019.

Smart Waste Management Jan 2019

An Iot based smart waste management system using smart bins to provide waste-management services with optimal amount of time and cost required for the same using machine learning model. Selected for final round of TEKCON'19 contest

Academic Project: RailSathi Oct - Dec 2018

Worked in a 3-person team to design a railways booking app as a part of the design project. This application aims to provide booking tickets for connecting trains if direct trains are not possible.

Creation of Jazz music using LSTM Oct - Dec 2018

Created a Jazz sampling model using LSTM and feeding Jazz music dataset. It was a part of the assignment in the deep learning course. Technology used: Python, Keras, pydub.

TECHNICAL SKILLS

Languages Python, C++, C

Database MySQL

Tools/Libraries Keras, Numpy, Pandas, Tensorflow, Pytorch Familiar Java, Javascript, HTML, CSS, Arduino

General Data Structures, Algorithms, Object Oriented Programming

CERTIFICATIONS

Game Theory by Coursera

Architecting with Google Compute Engine Specialization by Coursera

Machine Learning by Stanford University on Coursera

Sequence and Models by deeplearning.ai on Coursera

Web Development course by UPES ACM chapter

RELEVANT COURSES

Discrete Computational Structures

Graph Theory

Data Structures and Algorithm

Introduction to Database Design

Theory of Computation

Operating System

INVOLVEMENT

Student Mentor for Machine learning, SIG-TKMCE

Member of TKMCE Robotics Club, Research Team

Qualified for final round in Microsoft AI Challenge, 2018

Qualified for final round of IdeaFest 2019 for the product 'monitor24'

Volunteered for IEEE PES quiz, 2016

Member of CSI and ACM, TKMCE chapter in 2016

Participated in IRL robotics league zonal round , 2016