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AMIT SHARMA

Objective

An Embedded Software, ML, IOT, Robotics, Computer Vision and Python Developer enthusiast looking for an opportunity to learn, practice and work for an organization.

EDUCATIONAL QUALIFICATION

Examination	**University/Board** (Location)	**Year**	**CPI/%**
M.Des. (Electronic Systems)	IIITDM (Kancheepuram)	2018	8.25
B.Tech (Instrumentation and Control Engineering)	GCET (Greater Noida)	2014	65.24%
HSC	Pragati College of Science (Dombivali East)	2008	60%
SSC	R. C. Maruti High School (Andheri East)	2006	80.40%

INTERNSHIPS

Research Inter – *Ericsson Global Services, Chennai, India*

4th Dec, 2017 - 31 Aug, 2018

- IoT based Human Monitoring System
- IoT base indoor plant monitoring.
- Path planning in Mobile Robot using A* search algorithm
- Preparation of image dataset for building, testing and deploying a CNN based image classification on Raspberry Pi
- Development of cognitive system of a mobile robot autonomous navigation in an indoor environment using Reinforcement Learning and Deep Learning

CERTIFICATIONS

Certification in DAT257x: Reinforcement Learning Explained offered by Microsoft on EDX

Django 2 & Python: The Ultimate Web Development Bootcamp by Nick Walter on Udemy

TECHNICAL SKILLS

Languages: Python, C++, Java, Scala, C, Data Structure and Algorithms

Embedded System: GPIOs, I2C, UART, Interrupts, ADC, DAC, SPI, CAN, TCP/IP, Bluetooth, ZigBee, LoRa, Wi-Fi, RTOS, Embedded Linux

Hardware Modules: Tiva C, ST32, Raspberry Pi, Arduino, DC Motor, Stepper Motor, Ultrasonic Distance Sensor, IR-Sensors, LCD Screen, Servo Motor, ESC, BLDC, NB-IoT, Sensor Modules, RP-LIDAR

Python Modules: Django, Numpy, Scipy, Matplotlib, Tensorflow, Pandas, Keras, OpenCV, TkInter, wxPython

Databases: Postgresql, SQL, MongoDB

Operating System: Linux

Cloud Computing: DigitalOcean

Algorithms: A*,Linear Regression, Logistic Regression, CNN, RNN, LSTM, Q Learning, Reinforcement Learning, Decision Tree, Supervised, Unsupervised

PROJECTS

Wall Climbing Mobile Robot for Industrial Inspection (M.Des. Final Project) – *Guide: Dr. S. R. Pandian , Email: srp@iiitdm.ac.in*

- An IGCAR funded project for inspection of a nuclear tunnel
- It includes:
    - GUI control panel(Python, wxPython, OpenCV)
    - A four wheeled mobile robot(Raspberry pi, DC Geared motors)
    - A negative thrust propulsion mechanism(ESC, BLDC ducted fan)
    - UART connection between Raspberry Pi and Arduino

Autonomous Surface Cleaning Mobile Robot using TM4C1234GH6PM (M.Des, Embedded System Course Project) – *Guide: Dr. S. R. Pandian , Email: srp@iiitdm.ac.in*

- It involved utilisation of GPIOs of Tiva C launchpad for interfacing motor drivers and practicing PWM to control the motors
- Practicing ADC for obstacle avoidance with SHARP analog IR sensors
- Practicing Complete swipe algorithm on 32 kb ram size device to clean the room

MRI Brain Image Segmentation Using Fuzzy C-Mean Clustering Algorithm (M.Des, Digital Signal Processing Course Project) – *Guide: Dr. Priyanka Kokil , Email: priyanka@iiitdm.ac.in*

- Implemented modified fuzzy-c means clustering algorithm for the segmentation of brain tumour using MRI brain images using Matlab

Please Check out this YouTube Channel to get insights of my other projects – *https://www.youtube.com/channel/UC3osQYEtp53TzJ0QamLZavA?view_as=subscriber* **OR -** *https://www.onebookall.com/*

LANGUAGES

English (Proficient) Hindi (Proficient) Marathi (Proficient)