Mahmoud Gamal

MACHINE LEARNING ENGINEER

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Education _

Fayoum University

BSc in Mechatronics, Robotics and Automation Engineering.

class of 2023

Very good

skills

Knowledge: Machine learning | Deep Learning | Data visualization | Object oriented programming | Embedded systems | Control systems

Technologies and tools: Python | C | scikit-learn | Seaborn | LEX | Git | TensorFlow | Pandas | MATLAB/SIMULINK | AVR microcontroller

Languages: Arabic (Native) and English (Fluent)

Projects_____

Automated fresh fruit sorting system: the system consists of a Convolutional neural network model that classify the fruit and its condition eg rotten oranges or fresh apples. the model is then deployed using TensorFlow lite on raspberry pi which controls a servo that removes the rotten fruit

HuggingFace demo

Heart disease classifier: binary classification for the presence of heart disease. performed data exploratory analysis and data visualization using pandas and Seaborn. model training using logistic regression, decision tree, and random forest with sci-kit learn. Hyper parameter tuning using grid search.

pyctrl: developing open source python library for modern control, including functions such as: conversion between State Space and Transfer Function, solutions of state space systems, step response, pole placement, checking for stability, controllability, observability

Manipulator: Developed a 5 DOF manipulator, modeled the kinematic chain and calculated the inverse kinematics using Denavit–Hartenberg parameters, coded the GUI using TKinter, experimenting controlling methods.

Security lock: Security lock using ATmega16 interfaced with Hitachi LCD and keypad

Work Experience _____

Siemens energy-EGTA

Trainee August 2020 - September 2020

• Summer Virtual training on Electrical Engineering (Renewable Energy, Automation, Power Plants

Extracurricular Activity ____

IEEE FSB

ROBOTICS TEAM HEAD

Nov 2020- June 2021

• Founded the team, developed the curriculum and Tutored Robotics fundamentals and Arduino MCU

Fab lab Favoum

MACHINE OPERATION VOLUNTEER

Nov 2019-May 2021

• Technical support for the visitors

Related courses

- Introduction to TensorFlow for AI, ML, and DL
- Introduction to machine learning in production
- Neural Networks and Deep Learning
- Improving Deep Neural Networks
- Convolutional Neural Networks