Abdalla Rashed

Machine Learning Engineer

Python Developer specializing in **Machine Learning** & **Computer Vision** applications, with a background in Electrical Engineering. I possess high analytical and programming skills and seek to grow my experience in AI research & development.

Experience

APR 2023

Project Engineer

Esterline Project Management Services, Lockheed Martin CISS (Contractor)

- Research & Development for an automated Foreign Object Debris (FOD) detection system for aircraft engine bays.
- Workshops & mentorship support.
- Technology strategy consulting.

SEP 2022

JUN 2022

Artificial Intelligence Intern

Lockheed Martin CISS

- Research & Development for an AI aircraft inspection program.
- Showcasing project progress, results, and future strategies to executives & VIP guests.

MAR 2021

AUG 2020

Electrical Engineering Intern

Abu Dhabi University

- Research for social-distance monitoring, vehicles detection, lane detection & behavior cloning projects.
- Self-Driving Course Material: Preparing lab manuals and project kits

JUN 2020

Education

SEP 2020

B.Sc. In Electrical Engineering

Abu Dhabi University

- Summa Cum Laude with 3.99/4.00 CGPA.

SEP 2016

Personal Info

- Sharjah, UAE
- r.abdalla.1195@gmail.com
- r-evaar.github.io/profile
- Golden Visa
- +971 52 124 0215
- github.com/r-evaar

Software and Programming

Python
PyTorch, **Hugging Face**, **NumPy**, **Pandas**, **Flask**, OpenCV, Tkinter, Selenium

Version Control
Git, **GitHub**, & **GitLab**

MATLAB
Deep Learning & **Data Acquisition** Toolboxes, **App Designer**

Web
HTML, **CSS**, Bootstrap

C++
STL

Publications

MAR 2023 — https://doi.org/10.1016/j.engappai.2023.106143

Skills

Applied ML Experience
- **Vision Transformers**
- **CNN** Classification & Regression
- **Object Detection**
- **Motion Detection** & **Tracking**
- **Anomaly Detection** & **Self-Supervised** Learning
- **Continual Learning**

Additional ML Knowledge & Interests
- **RNNs & Transformers for NLP Tasks**
- **Multimodal Alignment**
- **Diffusion Models**

Agile Software Development Life Cycle

3D Design & Printing
- Autodesk **Inventor**

Embedded Systems Programming
- **Arduino** & Raspberry **Pi**
- Nvidia **Jetson** SOM

ROS Basics

Electrical Circuits Design

Professional Writing & Presentation in LaTeX & MS Office

Other Projects

APR 2021
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OCT 2020

AI-Powered Autonomous Robot for Pit and Flue Wall Health Condition Assessment

Emirates Global Aluminium

- Worked on building an AI-Powered drone for monitoring the operating conditions of aluminum anode baking furnace.
- Developed a framework for pit detection, visualization, & post-processing.
- Worked on an UWB indoor positioning system.

JUL 2020
|
SEP 2019

Smart Shopping Cart for People of Determination

Abu Dhabi University

- Developed a smart shopping solution to assist wheelchair users.
- Design involved: robotic arm for griping items, automatic barcode detection and scanning system, cart items detection & validation, and a shopping user interface.

MAR 2020
|
OCT 2019

Autonomous Robot for Temperature Abnormalities Detection

Emirates Global Aluminium

- Worked on an AI robot for detecting temperature abnormalities at aluminum smelters.
- Developed an autonomous driving framework for the robot.
- Provided and designed a solution for electromagnetic field interference, enabling the robot to properly operate at site.

Awards

APR 2021

First Place in 3rd EGA Industrial Robotics Competition

Emirates Global Aluminium

JUN 2020

First Place in 3rd Annual ECE Design Project Competition - Judges' Choice

Abu Dhabi University

MAR 2020

First Place in 2nd EGA Industrial Robotics Competition

Emirates Global Aluminium

2017-2020

Certificate of Excellence, Certificate of Honor Student

Abu Dhabi University

Other Activities

Dubai Maker Fair Exhibition
26th-28th Feb 2019

ADDA – Hackathon
17th-19th Nov 2019

Languages

Arabic, Native Speaker

English, Fluent