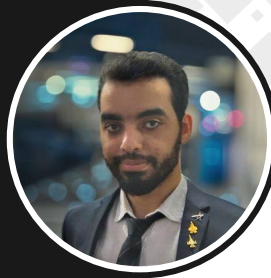# Abdalla Rashed
Machine Learning Engineer

Python Developer specializing in **Machine Learning** & **Computer Vision** applications, with a background in Electrical Engineering. Possesses high analytical skills, programming expertise, strong knowledge of data science and machine learning fundamentals, and a great passion for AI research & development.

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Sharjah, United Arab Emirates

r-evaar.github.io/profile

github.com/r-evaar

💼 WORK EXPERIENCE

AI Instructor - Full-Time
TalentEx
08/2023 - Present   *Dubai, UAE*
Professional Training Institute

Roles & Achievements
- Content development of interactive training courses on Generative AI applications in both English & Arabic.
- Exceptional delivery of training sessions, driving business success.

Developer - Part-Time
WaZii
09/2023 - Present   *Abu Dhabi, UAE*
An AI-Driven startup providing a SaaS solution for stock traders.

Roles & Achievements
- Scheduled - Delivery of the company's brand and website updates.

Contact : Naif AlKhunaizi - naif.alkhunaizi@mbzuai.ac.ae

Technical Advisor
Sportic
05/2023 - Present   *Abu Dhabi, UAE*
An Innovative startup providing a SaaS customer-oriented solution for local facilities.

Roles & Achievements
- Support development of roadmaps, tech stack, & agile processes.
- Development of the startup landing website.

Project Engineer - Contractor
Lockheed Martin | Esterline Project
09/2022 - 04/2023   *Abu Dhabi, UAE*

Roles & Achievements
- Initiation and delivery of an R&D program for AI-powered inspection of Foreign Object Debris [FOD] in aircraft engine bays. The prototype was presented in IDEX 2023.
- Conducting research experiments on advanced computer vision topics including image resynthesis, patch processing, knowledge distillation, and self-supervised learning.
- Delivery of collaborative learning & mentorship sessions for internal and external teams to improve work productivity and introduce them to useful topics and their applications.
- Development of the prototype demo interface, robot routines setup & testing, codebase maintenance, and 3D printing tasks.
- Providing technology & business development consulting.

Contact : Hala Majeed - hala.alzarkan@lmco.com

🔧 SOFTWARE

Python | PyTorch | Hugging Face | NumPy
Pandas | Flask | OpenCV | Tkinter
Selenium | PostgreSQL | Git | GitHub
GitLab | HTML | CSS | JavaScript
Bootstrap | C++ | Autodesk Inventor
MATLAB: App Designer, DL, Data Acquisition
Adobe Illustrator

🧠 TECHNICAL SKILLS

Machine Learning Engineering
ViTs, CNNs, Object Recognition, Motion Detection & Tracking, Anomaly Detection, Contrastive Learning, Continual Learning.

Robotics
3D Printing, Arduino, Raspberry Pi, Nvidia Jetson, Electrical Power Circuits, PID Control.

Project Management
Agile SDLC, Version Control, Exceptional Creative Design & Content Creation Skills for Technical, Managerial, & Educational Presentations.

📖 PUBLICATIONS

Journal Article
AI-powered health monitoring of anode baking furnace pits in aluminum production using autonomous drones
Author(s)
Tasnim Basmaji, et al.
30 June 2023
doi.org/10.1016/j.engappai.2023.106143

🖋 RESEARCH INTERESTS

Latent Traversals | Multimodal Alignment
Latent Diffusion Models | RNNs | NLP

WORK EXPERIENCE

AI Engineer - Intern
Lockheed Martin

03/2021 - 06/2022   *Abu Dhabi, UAE*
Roles & Achievements
- Continuing the development of the AI Aircraft Inspection program.
- Conducting research experiments on machine learning and computer vision topics including object recognition & tracking and continual learning.
- Showcasing projects & technical presentations to executives & VIP guests.

Contact : Hala Majeed - hala.alzarkan@lmco.com

Electrical Engineer - Intern
Abu Dhabi University

06/2020 - 08/2020   *Abu Dhabi, UAE*
Achievements/Tasks
- Conducting research for social-distance monitoring as well as Kalman filters experiments, lane detection, & behavior cloning for self-driving vehicles.
- Preparing lab manuals for a self-driving course.
- Preparing and testing a course project kit for a self-driving robot using Nvidia Jetson Xavier boards.

EDUCATION

B.Sc. in Electrical Engineering
Abu Dhabi University

09/2016 - 09/2020   *Abu Dhabi, UAE*
GPA
- 3.99/4.00

HONOR AWARDS

1st Place award in the 3rd Annual Industrial Robotics Competition (08/2020 - 04/2021)
Emirates Global Aluminium
- Worked on the development of an AI-Powered drone for monitoring the operating conditions of aluminum anode baking furnace.
- Developed a framework for pit detection, visualization, & post-processing.

1st Place award in the 2nd Annual Industrial Robotics Competition (09/2019 - 07/2020)
Emirates Global Aluminium
- Worked on an AI robot for detecting temperature abnormalities at aluminum smelters.
- Developed an autonomous driving framework for the robot.

1st Place in the 3rd Annual ECE Design Project Competition - Judges' Choice (06/2020)
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.

PERSONAL PROJECTS

Torch Engine (05/2023 - 06/2023)
- A modular engine, built on top of PyTorch, to provide high-level interface for different vision tasks
- Link: github.com/r-evaar/torch_engine
- Note: Development started on a private repository

Python Projects (03/2023 - Present)
- An on-going educational collection of mini-projects for learning advanced python concepts
- Link: github.com/r-evaar/python_projects

COURSES

AZ-900 Bootcamp: Microsoft Azure Fundamentals (08/2023 - Present)
20% Complete

Udemy | Complete SQL and Databases Bootcamp: Zero to Mastery (08/2023)
https://www.udemy.com/certificate/UC-48923cb5-d078-4729-815e-4d1bc199c0e6/

Udemy | PyTorch for Deep Learning in 2023: Zero to Mastery (06/2023)
https://www.udemy.com/certificate/UC-fccdec7a-9ad3-4d69-a108-dd1353875f9a/

Lazy Programmer | Data Science: Transformers for Natural Language Processing (06/2023 - Present)
30% Complete

Udemy | 100 Days of Code: The Complete Python Pro Bootcamp (01/2023 - Present)
70% Complete

Udemy | Beginning C++ Programming - From Beginner to Beyond (08/2022)
https://www.udemy.com/certificate/UC-a06c249e-71ad-4221-a952-8380031e7e67/

Coursera | Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization (10/2021)
https://coursera.org/verify/X6UKE864MEC3

Coursera | Structuring Machine Learning (10/2021)
https://coursera.org/verify/YBBAWYFDWNT4

Coursera | Neural Networks and Deep Learning (09/2021)
https://coursera.org/verify/AV259SPUMM22

OTHER ACTIVITIES

ADDATHON (11/2019)
Abu Dhabi Digital Authority

Dubai Maker Fair Exhibition (02/2019)
Dubai World Trade Centre

LANGUAGES

English
Full Professional Proficiency

Arabic
Native or Bilingual Proficiency