

Mariam Alzaabi

مريم الزعابي

Software Engineer · GNSS, AI and algorithms

Abu Dhabi, UAE
mariam@mariamalzaabi.ae
mariamalzaabi.ae · linkedin.com/in/mariam-mk-alzaabi
github.com/MariamAlz

PROFILE

Emirati software engineer working on GNSS and RF projects, with a master's in AI from Khalifa University. I build algorithms in signal processing and machine learning, and I like turning hard problems into clean, working code. Growing into space technology, with UAE Space Agency training in remote sensing.

EXPERIENCE

Software Engineer Sep 2024 to now

GNSS and RF projects, defense sector · Abu Dhabi

Build and maintain software tools that automate technical workflows for GNSS projects.

Space Applications Trainee Apr to Aug 2024

UAE Space Agency · Abu Dhabi

Geospatial analytics and remote sensing training through practical space projects.

Algorithm Engineering Trainee Jan 2024

MBZUAI, CIAI Engineering Team · Abu Dhabi

Helped turn Jais, the leading Arabic large language model, into a product.

Graduate Research and Teaching Assistant 2022 to 2023

Khalifa University · Abu Dhabi

Ran COSC-101 labs for 50+ students and assisted on COSC-434, Intro to Machine Learning.

Intern Summer 2021

Children's National Hospital · Washington, D.C.

Built RestEasy, a C# and Xamarin.Forms app prototype that monitors children's nighttime asthma.

EDUCATION

MSc Computer Science (AI) 2022 to 2024

Khalifa University

Thesis: Neuromorphic GAN-assisted computing architecture for image dehazing in underwater navigation.

BSc Computer Engineering 2016 to 2021

Khalifa University

Dean's List. Senior design: SaveSmart, energy forecasting for the KU smart home at Solar Decathlon Middle East.

PUBLICATIONS

Efficient Hybrid Spiking GAN for Underwater Image Dehazing

ICRA 2023 Workshop, Embodied Neuromorphic AI for Robotic Perception

GAN-Based Underwater Image Dehazing

UAE Graduate Students Research Conference (GSRC), 2023

Gulf Arabic Diacritization: Guidelines, Initial Dataset, and Results

Seventh Arabic NLP Workshop (WANLP), 2022

SKILLS

- Python
- PyTorch
- NumPy
- pandas
- MATLAB
- C / C++
- C#
- Java
- Julia
- SQL
- R
- Git
- Linux
- Docker
- Flask
- JavaScript

FOCUS

Signal processing and GNSS

Applied AI

Spiking and generative models, Arabic NLP

Algorithms and optimization

Genetic, swarm and ant colony methods

Websites and automation

TRAINING

Skydel Advanced Course

Safran, GNSS simulation certification

Samsung Innovation Campus, AI

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