Fatema Elgebali

M.Sc. in Machine Learning Student

Cairo, Egypt

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Education

Stellenbosch University
Stellenbosch, South Africa

MSc. in Machine Learning & Artificial Intelligence
Jan. 2023 - Dec. 2023

- Full time structured master's program.
- DeepMind Scholarship recipient.

The African Institute for Mathematical Sciences in Cameroon (AIMS Cameroon)
Limbe, Cameroon

MSc. in Mathematical Sciences (Major: Data science)
Sep. 2021 - June 2022

- **Essay title:** "General Oracle Operator for Non-Boolean Amplitude Amplification."
- **Supervisor:** Dr Wolfgang Scherer.

Cairo University
Giza, Egypt

BSc. in Mathematics and Computer Science
Sep. 2016 - May 2021

Experience

Stellenbosch University
Stellenbosch, South Africa

Teaching / Assessment Assistant / Demi
Feb. 2023 - June. 2023

- Helping the students taking Probability Theory and Statistics (PTS 114) during the tutorials.
- Assisting in the marking of tutorial tests or quizzes and uploading of marks.

Egyptian Space Agency (EgSA)
Cairo, Egypt

Summer Intern
Aug. 2020 - Sep. 2020

- Attending lectures online on satellites' structure and subsystems.
- Learning about statistical models and using the ARIMA model to predict anomalies in satellites using historical satellite telemetry time series data from Laboratory for Atmospheric and Space Physics (LASP).

Skills

Language Skills	• Arabic (mother-tongue). • English (Full professional proficiency). • French (Elementary proficiency).
Programming Languages	• Python (NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, Qiskit) • R, SQL, Java, JavaScript, C++, SageMath.
Typesetting Languages	• LaTeX. • Markdown.
Frameworks	• React. • Angular.

Research Interests

Quantum Computing, Quantum Information, Machine Learning, Quantum Machine Learning, Functional Analysis, Data Science, Theoretical Computer Science.

Summer and Winter Schools

Qiskit Global Summer School 2021: Quantum Machine Learning

Online

12 July 2021 - 23 July 2021

- A two-week intensive course focused on Quantum Machine Learning. This second-annual course, made up of twenty lectures, five applied lab exercises, hands-on mentorship, and live Q&A sessions, focuses on developing hands-on experience and understanding of quantum machine learning.

The Coding Schools's Qubit by Qubit Introduction to Quantum Computing Course with IBM Quantum 2020-2021

Online

Oct. 2020 - May 2021

- A year-long quantum course including weekly lectures and labs in quantum mechanics, quantum computation, and quantum algorithms.

Space Weather Monitoring Center Summer School, Helwan University

Regional Training Center, Cairo

Aug. 2018 - Sept. 2018

- Attended the 7th Space Weather Summer School (Solar Physics) held at the Regional Training Center in Cairo during the period from 27/8/2018 to 6/9/2018. Explore the variations of the sunspot's Magnetic field using SVM and Matlab.

Extracurricular Activities

Our Lady of Lourdes School

Limbe, Cameroon

Volunteer Math Tutor

Feb. 2022 - Mar. 2022

- Fulfillment for a mandatory give back activity at AIMS Cameroon.
- Tutoring mathematics for ordinary level GCE (Cameroon General Certificate of Education).

TEDxCairoUniversity

Giza, Egypt

Web developer

Sep. 2017 - Feb. 2018

- Contributed to developing TEDxCairoUniversity's website.