

Hussein Aly

AI Research Assistant

📍 Doha, Qatar

✉️ hussein.aly210@gmail.com

☎️ +974 30808600

🌐 LinkedIn

🔗 Google Scholar

SKILLS

Data Science & ML Engineering

Tensorflow

Pytorch

scikit-learn

Pandas

Scipy

Numpy

Python

Software Engineering

JavaScript

MongoDB

Express

Node

React

Cyber Security

Biomedical Authentication

Adversarial Machine learning

Blockchain

Network Security

Mobile Development

Android (Java)

Data Visualization

Matplotlib

Seaborn

LANGUAGE CERTIFICATION

English

IELTS 8.0

AWARDS

Top of Class (Masters) (June 01, 2022)

HBKU

The High Distinction Award

(June 01, 2020)

Qatar University

2nd Place in Senior projects Contest

Qatar University

3rd Place In CTF

Kindi Center For Computing Research

Experienced AI developer and researcher specializing in cutting-edge machine learning and deep learning techniques, with a track record of successful applications in diverse domains, including **biomedical**, **computer security**, **power systems**, and pioneering new **AI model architectures**.

WORK EXPERIENCE

Qatar University

(June 01, 2020 - Present)

AI Research Assistant

Worked on multiple projects Funded by Qatar National Research Fund (QNRF)

AI applications to enhance Security and privacy of the Smart Grid

Project # NPRP 12C-0814-190012

September 2022 until now

- Extensively benchmarked multiple **CNN** models for Smart Grid user profiling, offering researchers a valuable reference to streamline their work and avoid redundant experiments
- Designed, implemented, and assessed an attack scheme to uncover vulnerabilities in **LSTM** models, leading to potential data leaks.
- Made significant contributions to the development of 4 academic papers (1 accepted, 3 under review).

Detection of hypoglycemic events from wearable devices (ECG signals)

Project # NPRP 11S-0110-180247

September 2020 to June 2022

- Developed a state-of-the-art **CNN-based** model using **TensorFlow** and **Keras** to accurately detect hypoglycemic events from ECG data.
- Created an Android mobile application for collecting diverse biomedical signals (ECG, PPG, EDA) from a cohort of 61 participants using multiple biomedical sensors.
- Collaborated closely with healthcare professionals to ensure the clinical validity and practicality of the developed solution.
- Contributed significantly to the development of 5 academic papers (4 accepted, 1 under review).

Covid-19 cases prediction in Qatar

Project # RRC -2-104

June 2020 to August 2020

- Implemented a highly accurate Bi-directional **LSTM** model using **Keras** for predicting Covid-19 cases in Qatar.
- Utilized advanced data preprocessing techniques with **Pandas**, **Numpy**, **Sklearn**, and **Scipy** to ensure the reliability and accuracy of predictions.

INTERNSHIPS

Qatar Computing Research Institute

Full Stack Web Developer

- Intern Full stack web developer to develop the ADIR Social Media Image Visualization website using **React**, **Node.js**, and **Elasticsearch**.
- Collaborated with a team of researchers and developers to improve the website's functionality and user experience

EDUCATION

Hamad Bin Khalifa University

(August 01, 2020 - June 01, 2022)

Masters of Science , Cyber Security

4.0/4.0

Qatar University

(September 01, 2016 - May 01, 2020)

Bachelor of Science, Computer Science

3.92/4.0 (Honor)