

HAMAD H. ALSHERAIFI

—Researcher at Khalifa University (KU)—



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EXPERIENCES

Abu Dhabi, UAE
June 2022 –
Present

Researcher | *Center for Biotechnology (BTC), KU*
My main task is to analyse the data and incorporate AI to the current project held in BTC regarding wastewater surveillance in the UAE. I built an ML prototype, with pre-processing features, that currently uses XG-Boost for training and predicting the number of viral counts after a week. I also train under BTC staff and help them in the lab work, both in BTC and in the wastewater facility on various bio-related tasks.

Abu Dhabi, UAE
June 2022 –
August 2022

Data Science Intern | *Emirates ICT Innovation Center, KU*
Covered ML/DL principles in depth, such as ANNs, CNNs, GANs, ensemble learning, and other AI principles. Developed a GAN model for binary classification.

Abu Dhabi, UAE
July 2022

Robotics Intern | *KU Center for Autonomous Robotic Systems*
Covered core-essentials of robotics programming and tested the knowledge obtained (embedded programming-Arduino, Computer Vision-OpenCV, RESTful APIs) by projects like RESTful Robot - A Remote Tracking System. Tools: Python, Linux (Ubuntu 20.04), Google Cloud, ROS including turtlesim

Al Ain, UAE
January 2021 –
April 2021

Software Engineer Intern | *National Space Science & Technology Center, UAEU*
Developed a GUI-based OBC simulation, using Python and Arduino, that acts as a replica to the telecommand/telemetry process in the satellite with UART as the communication protocol. Provided presentations at NSSTC. Contributed with NSSTC's "GNSSa Weekly Project Meeting" to follow up with the entire team's progress and to share updates on my development status.

Al Ain, UAE
September 2017 –
November 2017

Peer Tutor | *Tutorial Center, UAEU*
Assisted students in English language mainly in Speaking, Writing, and Grammar. Helped students prepare for English tests (IELTS, UGRU English levels 1-4).

AWARDS

June 2022

Member of the Elites. One of the 32 (1%) selected, by KU and National Service & Reserve Authority (NSRA), in the 17th Batch of UAE national service across the country to do research and enhance our research skills at KU.

December 2020

Winner of Fall 2020 Best Senior Project Contest, UAEU. Out of the 39 senior projects to be presented on the Fall of 2020, my team and I were both nominated and secured first place.

Fall 2018 - Fall 2020

Dean's List: Maintained a GPA of 3.6+

CERTIFICATIONS

September 2022

IELTS (Academic) Band 7.5

August 2022 – 2028

Biomedical RCR from [CITI Program](#)

November 2021

Python Certificate from [Hackerrank](#).

April 2018

Basic Level Tutor: National Tutoring Association (NTA)

SAMPLE VOLUNTEERING & EXTRACURRICULARS

March 2018 –
April 2018

Volunteered for several days on a veterinary clinic on a research project to raise awareness on the common ailments found in cats and dogs in the UAE. [Link to project](#).

April 2018

Took part in the 4th UAEU Annual Undergraduate Student Research Conference 2018 to share our research based on the prevalence on diabetes in the UAE.

EDUCATION

U.A.E. University (UAEU)

Al Ain, UAE | May 2021

Bachelor of Science in Computer Engineering

Major GPA: 3.68

Cumulative GPA: 3.51

SKILLS

PROGRAMMING LANGUAGES: -

C++, Python, Rust, Arduino, Java, Verilog, Embedded C

AI/ML/DL TECHNIQUES: -

Linear Regression/Classification, Ensemble Learning (trees), ANNs, CNNs, GANs, Computer Vision (OpenCV)

WEB-DEVELOPMENT TOOLS: -

HTML, CSS, JavaScript, Bootstrap, WordPress, Django, GitHub Pages

IOT PLATFORM: - Thingier.io

OPERATING SYSTEMS: -

Windows OS, MacOS, Linux

ELECTRICAL/HARDWARE: -

Digital Design, Logic Gates, Arduino Boards, Wiring, Electrical Components

NETWORKING: -

IPv4, TCP, UDP, UART, IP Classes, Subnetting

SOFTWARE DESIGNING TOOLS: -

Google Colab, VS Code, PyCharm, MS Visual Studio, MS Office, Tinkercad, Packet Tracer, NI Multisim, iMovie, Tkinter

SAMPLE PROJECTS

CUSTOM VANILLA GAN MODEL

Developed a Vanilla-based GAN model suitable and efficient for binary classification: to generate a proper training set for ML-based classifier.

SCOOTER INCIDENT REPORTING SYSTEM (SENIOR PROJECT)

Designed an attachable device to an e-scooter whose duty is to detect a fall, collision, or a crash from the e-scooter and send the data to an IoT platform via Wi-Fi.

EXECUTION SPEED BENCHMARK

Performed a simple benchmark test to compare the average execution speeds of three different programming languages: Rust, C++, and Numba of Python. Details of the results are noted on my Github page.

HOTEL RESERVATION WEBSITE

Built a full-stacked website using frontend tools (HTML, CSS, JS) with PHP as the backend and MySQL as the database.

REFERENCES

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