Firas Darwish

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firasdarwish.com

Computer Engineering student committed to pursuing data-driven, interdisciplinary research on human-centred questions and developing technical approaches and tools in response to these questions.

ENGINEERING EXPERIENCE

Detection of Political Bias in Literature Reviews

Abu Dhabi, UAE

Research Under New York University Abu Dhabi's Social Research and Public Policy Faculty

Nov 2022-Present

- Designing a tool to detect political bias in literature reviews on platforms like Goodreads.
- Building a script that utilizes Twitter's API to connect with users socially to verify their political prejudice and compile a veritable dataset.
- Experience in designing applied machine learning solutions in a research-oriented setting.
- Aim to explore whether the methodology employed in contemporary literature to detect political bias in texts erroneously assumes that a user's rating to a politically charged book aligns with their partisanship.

MapYours Abu Dhabi, UAE

Self-Developed Web Application and Software

Dec 2022—Present

- Developing an independent social media application that allows users to map out and journal their prized nooks and places to visit throughout various cities.
- Constructed and designed front-end using a variety of HTML, CSS, JavaScript
- Built back-end of the site principally using Python, with the framework of choice being Django
- Extensive use of Google Maps (API) Platform to include features such as geolocation, labelling

Examining Digital Communities and Networks

Abu Dhabi, UAE

Human-Centred Data Science Project

Oct 2022—Dec 2022

- Conducted a thorough investigation of the influence of Elon Musk's takeover of Twitter on digital communities housed on the social media platform.
- Mapped the effects of a novel and dynamic, non-political power shift on social behaviours and interactions.
- Utilized several Python packages, such as NumPy, Pandas, and Matplotlib
- Made extensive use of Twitter's API to collect data from the site through TwitterAPI and Tweepy (Python libraries).

Data Analyst Abu Dhabi, UAE

Laboratory of Neural Systems and Behavior

Jan 2022–March 2022

- Wrote, reviewed, and corrected code to detect which stage in the sleep cycle a subject is in.
- Formal training in using a variety of Python packages in a research-oriented setting, such as NumPy, RegEx, Pandas, Matplotlib, Sci-kit Learn.
- Self-directed research on how to make sense of different data-science tools

Apnea Detection Tool

Abu Dhabi, UAE

Nov 2021-Dec 2021

Script to Detect Periods of Apnea in a Child's Sleep

- Employed several statistical methods and approaches to transform and analyse ECG data and perceive periods of breathing irregularities.
- Successfully achieved 97% accuracy
- Developed entirely in the programming language Matlab

Fall Detecting Watch Abu Dhabi, UAE

May 2025

May 2021

- Formulated and programmed logic around hardware's accelerometer and gyroscope in order to perceive when the device (and its wearer) suffers a fall and alert a dedicated emergency number.
- Employed basic machine learning code to detect the wearer's voice and allow them to communicate verbally with the watch in case of a fall that deems them immobile.
- Designed interactive UI to align with the watch's detection state.
- Constructed mechanism to test whether patient suffered a concussion or any brain injury of some sort.
- Designed entirely on M5Stack using C++ script.

EDUCATION

NEW YORK UNIVERSITY Abu Dhabi, UAE

Bachelor of Engineering in Computer Engineering

GPA: 4.0/4.0

AMERICAN INTERNATIONAL SCHOOL IN ABU DHABI Abu Dhabi, UAE

International Baccalaureate Diploma Programme Valedictorian (45/45)

ADDITIONAL SKILLS AND EXPERIENCES

Placed 4th in the UAE in the IEEEXxtreme competitive programming competition.

- Served as First-Year Representation in NYUAD, programmed collegian events and initiatives pertaining residential education, and managed a budget of over \$100,000.
- Moderator of 'Transport and Infrastructure Dialogue' during the 2022 China-Gulf Forum
- Designed, Produced, and Exhibited artistic work on surveillance and the panopticon effect as part of Swalif and NYUAD Dirwaza Lab's 'Ybna Al3eid' showing in 2022.