Reem Alsharabi

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Education

Effat University — Jeddah, Saudi Arabia
BSc in Computer Science — *Aug 2020 – Dec 2023 (expected)*

- GPA: 3.94 out of 4
- Dean's List for all semesters.
- Albanawi List of academic excellence.

Experience

KAUST AI Intern — July 2023 – August 2023
King Abdullah University of Science and Technology (KAUST) — *Thuwal, Saudi Arabia*

- Explored LLMs' classification abilities, exposing limitations in detecting sociocultural bias in LLM-generated text.
- Trained a specialized bias classifier, achieving 97% accuracy on unseen data, outperforming GPT-3.5 which achieved 53%.
- Collaborated with Dr. Guohao Li at the Image and Video Understanding Lab (IVUL).

Robotics and AI Intern — June 2023 – August 2023
Smart Methods — *Jeddah, Saudi Arabia*

- Integrated Embedded TensorFlow into a robotic vision system, enabling real-time object detection and recognition capabilities achieving an average precision of 90%.
- Integrated sensors, including cameras, with the robotic arm, preprocessing sensor data for input into the DL models.

Research Assistant — October 2022 – October 2023
Effat University - ECE department — *Jeddah, Saudi Arabia*

- Developed a predictive ML model for LEDs lifetime prediction, addressing out-of-distribution predictions under use conditions with a reduction in relative error from 99% to 2%.

Awards

Undergraduate Research Forum — May 2023

- Awarded 2nd place among 30 participants in the undergraduate research forum at Effat University (3-minute presentation).

Selected Projects

LLM's Bias Detector | *Pytorch, Flask*

- Collected a diverse dataset by leveraging OpenAI's GPT-3.5 API.
- Fine-tuned GPT-2 and achieved a significantly higher accuracy (97%) compared to GPT-3.5 (53%).
- Created a web-based application using Flask to provide a user-friendly interface.

GTSRB CNN | *Pytorch*

- An open-source contribution to enhance the accuracy of CNNs for predicting road signs using the GTSRB dataset, elevating the validation accuracy from 70% to 92%.

SignLSTM | *Python, Keras, Mediapipe*

- Real-time sign language gesture detection system using video/webcam.

Facial Recognition | *Pytorch*

- Facial recognition model trained on a diverse dataset with 96% validation accuracy.

Technical Skills

Java, C/C++, Python, PyTorch, MATLAB, SQL, ASP.NET, Git

Blog

- The Random Walk Simulation