

Ibrahim Aldarmaki

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EDUCATION

The University of Edinburgh	Edinburgh, UK
B.Eng. Electronics and Electrical Engineering (First Class Honours)	2020–2023
• Thesis: Deep Neural Networks for Direction of Arrival Estimation using Circular Microphone Arrays	
United Arab Emirates University (Transferred)	Al Ain, UAE
B.Sc. Electrical Engineering GPA: 4.0/4.0	2019-2020
Applied Technology High School	Fujairah, UAE
Advanced Science Program/Elite Sector Class Rank : 1 Country Rank : 6	2015-2019

RESEARCH EXPERIENCE

Associate Researcher, Khalifa University (KU)	Abu Dhabi, UAE	09/2024 – Present
• Working on wireless sensing for healthcare applications using signal processing and machine learning.		
Associate Researcher, Mohamed Bin Zayed University of Artificial Intelligence (MBZUAI)	Abu Dhabi, UAE	12/2023 – 04/2024
• Worked with Prof. Thamar Solorio on predictive & generative code-switching models.		
• Worked with Prof. Bhiksha Raj and Dr. Hanan Aldarmaki on multi-channel speech enhancement & speech separation.		
Space Science Researcher, Mohammed Bin Rashid Space Center (MBRSC)	Dubai, UAE	06/2022 – 08/2022
• Conducted in-depth research on the Emirates Mars Mission (EMM), exploring Martian surface diurnal temperature and characterizing its' thermophysical properties.		
• Developed and presented thermophysical properties estimation algorithms that surpassed current industry standards in accuracy and efficiency.		

PROFESSIONAL EXPERIENCE

Signal Processing Summer School, University Defense Research Collaboration (UDRC)	Edinburgh, UK	06/2023
• Engaged in theoretical and practical sessions in statistical signal processing, tracking & sensing, machine learning, and source separation.		
Teaching Assistant, The University of Edinburgh	Edinburgh, UK	04/2023 – 05/2023
• Facilitated the learning process in the second-year digital systems design course in analyzing and designing combinational and sequential gate-level circuits.		
Relations Manager and Committee Member, Emirati Students Society	Edinburgh, UK	04/2023 – 05/2023
• Organized and managed a wide range of events as the Relations Manager for the Emirati Students Society at The University of Edinburgh, resulting in successful events.		
Teaching Assistant, The University of Edinburgh	Edinburgh, UK	09/2022 – 05/2023
• Served as a teaching assistant for the third-year digital systems design course.		
• Guided students in developing synchronous digital circuits and realizing finite-state machines from high-level functional specifications and prototyping them on FPGA hardware.		
Treasurer and Committee Member, EUEEE Society	Edinburgh, UK	09/2022 – 05/2023
• Managed funds allocations as the treasurer of the Edinburgh University Electronics and Electrical Engineering (EUEEE) Society. • Organized events for the EUEEE Society.		

PUBLICATIONS

- **Ibrahim Aldarmaki**, Thamar Solorio, Bhiksha Raj, Hanan Aldarmaki "RelUNet: Relative Channel Fusion U-Net for Multichannel Speech Enhancement," Submitted to ICASSP 2025, September 2024.

SKILLS

Python, PyTorch, TensorFlow, MATLAB, Minitab, Java, C, LTSpice, Xilinx, Verilog HDL, Basys3 FPGA, STM32 Board