Sakib Mahmud

Research Associate, Qatar University

Department of Electrical Engineering · Doha, Qatar
sakib.mahmud@qu.edu.qa
Online CV · Updated 16 November 2026

Selected research contributions

Estimating 3D foot kinetics from wearable signals

IEEE Journal of Biomedical and Health Informatics · 2026

I led preprocessing, model development, subject- and speed-wise evaluation, analysis, and manuscript preparation.

Kidney stone segmentation in CT

Biomedical Signal Processing and Control · 2026

I designed the successive scope-reduction and feature-transfer approach and led model development, experiments, analysis, and manuscript preparation.

Cross-device Raman spectroscopy

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy · 2026

I led the modelling and evaluation of the spectral transformation and recognition workflow, including implementation, generalization analysis, visualization, and writing.

Grading prenatal hydronephrosis from ultrasound

Expert Systems with Applications · 2024

I contributed to study design and data curation, developed the methods and software, and wrote the original draft with the research team.

Education

MSc in Electrical Engineering

Qatar University · 2021–2023

Thesis on deep learning techniques for kidney disease detection.

BSc in Electrical Engineering, Honours

Qatar University · 2016–2020

Research and professional appointments

Research Associate

Qatar University · July 2023–present

Conduct and coordinate bioengineering research in machine learning, medical imaging, wearable sensing, and computational biomechanics. My work spans study design, dataset development, and model evaluation.

Data Scientist (contract)

Iberdrola Innovation Middle East · July 2023–July 2024

Developed and evaluated machine learning methods for inferring electricity use and building occupancy from multichannel smart-meter data.

Research Assistant (part-time)

Hamad Medical Corporation · January 2022–August 2023

Co-developed the prenatal hydronephrosis ultrasound dataset and worked on kidney localization, segmentation, and severity grading.

Summer Research Intern

Qatar Computing Research Institute, HBKU · May–July 2023

Explored variational autoencoders for finding abnormal gene expression in RNA sequencing data from Mendelian disease studies.

Research Assistant

Qatar University · August 2018–May 2020 (part-time), June 2020–June 2023 (full-time)

Developed electronic and photonic smart-insole prototypes, collected plantar pressure and temperature measurements, and contributed to biomedical signal and image analysis.