Abd AlRahman Abu Saleh

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Education

Northeastern University, College of Engineering ***Boston, MA***
Candidate in B.S. in Electrical and Computer Engineering *May 2028*
Honors: Recipient of a King's Abdullah II Scholar of Excellence Scholarship, Dean's List **GPA: 4.0/4.0**
Relevant Courses: Altium Education PCB design Course, Circuits and Signals, Embedded Design, Fundamentals of Networks

Skills

- Programming Languages: Java, C++, Python, HTML, MatLab, 3D Printing
- Design Tools: AutoCAD, Solid Works, LTSpice, Quartus Prime, Altium
- Hardware: Oscilloscope, Multimeters, Arduino, ESP32, Soldering, Nordic MCUs, Reflow Machines, CNC

Work Experience

Miele ***Peabody, MA***
R&D Electrical and Computer Engineer *Jan 2026-Jun 2026*
Vectors CS ***Amman, Jordan***
Tech Consultant *Jun 2025-Aug 2025*

- Identified optimal ERP Systems for clients through interviewing them with comprehensive questions to recommend the best fit such as SAP S/4HANA and Oracle Fusion Cloud for their system
- Validated regulated pharmaceutical local and abroad industries through multiple rounds of interviews as well as studying the client's processes to be eligible for the CSV (Computer System Validation)
- Reviewed RFPs and tenders sent by vendors based on specific criteria providing feedback and comprehensive comparisons
- Designed and reviewed vendor management system wireframes and process flow used in making software system for clients

NAME Lab ***Burlington, MA***
Undergraduate Research *Feb 2025-May 2025*

- Developed films that can store and transfer information using magnetic momentum of two electrons spinning made of YIG (Yttrium, Iron, Granite) deposited on GGG (Gadolinium, Gallium, Garnet) using Pulsed Laser Deposition to be used in spintronics for faster more sustainable chips
- Developed Quantum materials made of beta and alpha tin through utilizing its topological property like the spin-momentum lock using Pulsed Laser Deposition deposited on silicon films to create much more efficient chips that are used in spintronics

Engineering Projects and Clubs

Generate Product Development Studio ***Boston, MA***
Hardware Engineer *Jan 2026-Present*

- Working in a team of electrical and mechanical engineers to develop an advanced river gauge utilizing pressure sensors transmitting data to a public access website monitoring the water levels in regular intervals.
- Responsible for the MCU subsystem designing the schematics for the low power consumption nRF54l15 as well as the PCB layout on Altium utilizing communication protocols such as SPI, and SWD to flash it through an interfaced debugger.

Forge Club ***Boston, MA***
Hardware Product Development Lab Engineer *Sept 2025-Dec 2025*

- Collaborating with engineers from different disciplines on developing a defogging bathroom mirror called Mira through a heating fan that prevents condensation embedded with automatic wipers undergoing rigorous testing and prototyping
- Designing a schematic of the ESP32 MCU and power electronics subsystem as well as DHT 22 temperature sensor and an LCD screen, then designing the PCB layout to be used producing the final product
- Soldering sensors like DHT22 and peripherals like LCD screen, and heating fans to the ESP32 control board for assembly.
- Writing the firmware encompassing the ESP32 with the rest of the components including a stepper motor and three 12V fans controlled by a relay.

ECG Sampling, Analysis, and Filtering ***Boston, MA***
Northeastern University *Dec 2025*

- Designed active op-amps filters including low pass and high pass filters to collect ECG signal through electrode robes.
- Collected and processed the digital ECG signal in MatLab through a digital low-pass filter to reduce the noise in the ECG signal as well as removing the 60 Hz interference by modifying the Fourier coefficients.

FPGA Spider Robot ***Boston, MA***
Northeastern University *Dec 2025*

- Programmed an Altera DE1-SoC board in Quartus to generate PWM signals that control the servo motors in the robot.
- Designed an object-oriented C++ program that controls the robot logic and executes a specific sequence of movements.

Honors/Certifications

- Altium Education PCB Basic Design Certification
- Aqaba Process Meeting: Invited by King Abdullah II; contributed to discussions with global ambassadors on regional challenges and actionable solutions