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

Work Experience

Miele *Peabody, MA*
Incoming 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

Summer at King's Academy *Madaba, Jordan*
Residential Life Counselor *July 2024*

- Organized cultural trips across Jordan, promoting intercultural understanding
- Supervised 40+ students in a residential program, ensuring their well-being and academic progress

Engineering Projects and Clubs

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 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 a 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.
- Implementing the wiring of the Stepper motor and 12V fans and controlling them using a relay and coding them.

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 control the robot logic and executes a specific sequence of movements.

Honors/Certifications

- Altium Education PCB Basic Design Certification
- Maze Generator and Solver - Java, graph-based algorithms (1st place, King's Academy CS Fair)
- Tourism Website - HTML, CSS (2nd place, King's Academy CS Fair)
- Aqaba Process Meeting: Invited by King Abdullah II; contributed to discussions with global ambassadors on regional challenges and actionable solutions