

Abdullah Abdel-Khalek

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EDUCATION

University of Houston, Cullen College of Engineering – Houston, Texas

Bachelor of Science in Computer Engineering and Analytics

Expected Graduation: May 2025

Current GPA: 3.64 | Dean's List

Relevant Coursework:

- Intro to Control Systems, Engineering Data Analytics, Robotics & Automation, Embedded Computing & IoT, Pattern Recognition and Machine Learning

RELEVANT PROJECTS

Senior Capstone Project | **HR.AI: AI-Powered Skill Assessment and Resume Filter**

Sept 2024 - Present

- Developing an AI platform to automate skill assessments and resume filtering, simulating human-like evaluation for software engineering roles.
- Leading the design and implementation of dynamic prompting, few-shot learning, and AI-driven assessments to evaluate candidates' problem-solving approaches and methodologies.
- Leveraging Python, SQL, JSON, OpenAI APIs, LLM integration, NLP, and scenario-based testing to create real-time, human-like interactions for skill evaluations.

Group Project | **MATLAB Energy Source Comparison Tool**

Feb 2022 - April 2022

- Developed a MATLAB application leveraging advanced data analytics to evaluate the economic impacts of Nuclear, Solar, and Fossil energy sources across 12 countries.
- Enabled data-driven decision-making by demonstrating that Solar emits 20x less CO₂ than Fossil fuels, Nuclear emits 68x less, and Solar achieved 100% market growth from 2020-2021, highlighting cost-effectiveness and sustainability.

WORK EXPERIENCE

Sensytec Inc | Houston, TX

May 2022 - Aug 2022

IoT-Based Concrete Quality Sensors Engineer | *Internship*

- Upgraded Bluetooth-based 20-foot sensors to Wi-Fi-enabled sensors with a 650-foot range, enhancing cloud connectivity and tripling sensor lifespan.
- Optimized power management by 80% by transitioning from lithium batteries to solar energy, ensuring continuous monitoring and early detection of concrete issues.
- Collaborated with cross-functional teams to develop and install new sensor firmware, integrating seamlessly with applications and enabling real-time updates via a mobile interface.
- Achieved a 62.5% cost reduction compared to traditional testing methods and prevented costly concrete removal, saving 100% on potential rework expenses.

AT&T | Houston, TX

July 2023 – Jan 2024

Junior Marketing Director & Salesman

- Boosted sales by over 110% at the Cypress, Texas location through targeted marketing and personalized tech solutions.

Icon Exotics | Houston, TX

Oct 2022 – July 2023

Salesman, Marketing Manager & IT specialist

- Implemented IT systems, optimized operations, and increased dealership visits by 40% through strategic digital campaigns.

SKILLS

- **Programming Languages:** Python, C, SQL, MATLAB, ARM Assembly
- **Technologies:** Machine Learning, AI, LLMs, Data Analytics, IoT Development, Firmware Testing, Embedded Systems, Automation, Control Systems
- **Hardware Engineering:** Sensor and Circuit Design & Optimization
- **Languages:** English, Arabic

LEADERSHIP

Co-Founder | **Innovators Guild**

April 2024 - Present

- Maker space aimed at fostering student projects through workshops and guest events.