

SHALIAH FRICAS

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EDUCATION

University of Massachusetts, Boston | Boston, MA

Expected Graduation: May 2027

Bachelor of Science in Computer Engineering | Minor in Computer Science

Relevant Coursework: Python, Programming in C++, Data Structures & Algorithms, Circuit Analysis, Calculus 1-3, Honors Applied AI, Engineering Design, Discrete Math, Linear Algebra, Digital Systems, Physics

Certifications & Programs: TRIO McNair Scholars Program - Undergraduate Research Fellow, Agentic AI for Business, Multi-Tier AI Agent Architecture, Oxford Saïd Business School Artificial Intelligence Programme Alumni

RESEARCH

McNair Scholar - ICARUS Lab | (Mentor: Prof. Zografopoulos) | [Link](#)

February 2026 - Present

Undergraduate Researcher - Robotics & Cyber-Physical Systems

- Testing a TurtleBot3 Burger sensor reliability under manipulated input using ROS2 and Opal-RT hardware-in-the-loop (HIL) simulation. I am also analyzing how cyber-physical attacks affect navigation, system reliability, and human trust in assistive robotics.

UCaN Lab | (Advisor: Prof. Rahaim) | UMass Boston

Undergraduate Researcher

September 2025 - Present

- Researched hybrid RF and optical wireless communication systems using real-time hardware and live data. I developed machine learning models (BiLSTM classification) in MATLAB on SDR I/Q data for indoor localization and environment classification.

ENGINEERING PROJECTS

AFRL/ HyLo SDR Research Project | SDR, MATLAB, Python, RF, OWC, Raspberry Pi | [Link](#)

- **AFRL Finalists:** Developed a hybrid indoor localization system that combines RF fingerprinting with Optical Wireless Communication (OWC) and Visible Light Positioning (VLP) to improve accuracy in environments where GPS fails.

MediSeek (Biomedical AI Troubleshooting Agent) | AI Agent Editor, Generative AI | [Link](#)

- Designed an AI-powered troubleshooting agent that supports biomedical engineers and healthcare professionals in diagnosing medical device faults, improving response time, and reliability in clinical environments

WORK EXPERIENCE

Operation Autopilot, Inc. | Boston, MA

Robotics Field Engineer Intern (Hybrid)

January 2026 - Present

- Supporting live deployments of autonomous robots (AMR) by diagnosing navigation, task execution, and docking issues, while coordinating field operations and communicating system health to customers and teams

NeuralSeek | Miami, FL

AI Agent Builder Intern (Remote)

August 2025 - September 2025

- Collaborated with a team to design and deploy generative AI agents that address real-world challenges for industries like HR, Healthcare, and Business

Arka HR | Boston, MA

Operations and App Development Intern

June 2023 - December 2024

- Streamlined internal HR workflows by organizing data, coordinating across teams, and supporting process improvements, gaining hands-on experience with structured operations and cross-functional collaboration.

SKILLS

Languages: MATLAB, C++, Python, Bash

Embedded: ROS/ROS2, Arduino IDE, Raspberry Pi, Microcontrollers, sensor integration, autonomous systems, robotics operations, hardware-in-the-loop(HIL)

RF & Signals: GNU Radio, Software-Defined Radio (SDR), Optical Wireless Communication (OWC/Li-Fi)

Technologies: LTspice, Linux/Ubuntu, VS Code, KiCad, Matplotlib, CAD, Microsoft Office (Word, PowerPoint, Excel), Google Suite (Doc, Slides, Sheets), Canva, Adobe

Other: Cyber-Physical Systems, IT Troubleshooting, Device Repair, PC Building

Languages spoken: Bilingual in English and Spanish