Mohammed Aljamal

LAB ENGINEER | APPLIED AI & ROBOTICS | EMERGING TECHNOLOGY

PROFESSIONAL SUMMARY

Lab Engineer and Ph.D. student in Computer Science and Engineering (Robotics and Machine Learning) who runs day-to-day operations of the University of Bridgeport's Interdisciplinary Emerging Technology (IET) Lab. Pairs an M.S. in Artificial Intelligence with 15+ years of industry experience delivering large-scale security, surveillance, and transportation systems, including a 400+ site government contract won in a six-company proof-of-concept competition. Turns robotics, AI, and rapid-prototyping tools into working demonstrations and supports faculty, student, and industry projects from concept to execution.

SKILLS

AI & Computing: Machine learning; AI agents and retrieval-augmented generation (RAG); GPU computing environments

Robotics: ROS (perception, navigation, SLAM); robotic arms and collaborative robots; humanoid and mobile robots; sensing and control integration

Engineering & Prototyping: 3D printing and additive manufacturing; prototype fabrication; equipment setup, testing, and troubleshooting; technical documentation.

Leadership & Business: Lab operations and safety; technical project management; systems integration; student mentoring and instruction; customer engagement; international business development

PROFESSIONAL EXPERIENCE

University of Bridgeport, School of Engineering | Lab Engineer, Interdisciplinary Emerging Technologies (IET) Lab

- Manage day-to-day operation of a multidisciplinary emerging technology lab beside other 18 engineering laborites, workshop serving faculty, graduate researchers, undergraduates, and external collaborators, keeping equipment ready, spaces safe, and documentation current.
- Integrate, test, and demonstrate robotic and interactive systems, including humanoid robots, dual-arm manipulators, and collaborative robots, along with their sensing and control hardware.
- Support applied AI projects such as AI-agent and RAG-based campus knowledge-assistant concepts, alongside work in biomedical and assistive technology and smart manufacturing.
- Fabricate 3D-printed prototypes, components, and lab signage, and build engineering demonstrations for active projects.
- Act as technical point of contact for faculty, students, lab residents, and IT staff, resolving issues and preparing equipment so projects stay on schedule.
- Assess equipment, software, and infrastructure needs and contribute to acquisition, integration planning, and maintenance.
- Lead lab tours, STEM outreach, campus visits, and industry demonstrations that connect engineering concepts to real-world applications.

University of Bridgeport, Interdisciplinary Robotics, Intelligent Sensing, and Control Lab | Graduate Research Assistant & Teaching Assistant

- Ran lab and help sessions for undergraduate and graduate introductory robotics courses under Professor Sarosh Patel, supporting students per semester.
- Guided students through assignments and technical problems, helped administer midterm and final assessments, and managed course communication on Canvas.
- Evaluated mobile robots and robotic arms with vendors to inform lab procurement decisions.
- Conducted hands-on research and experimentation in robotics, intelligent sensing, and control.

ZEE Group, Inc. | Development Manager

- Won a government contract covering 400+ sites after the team's solution was selected over six competing companies in a proof-of-concept evaluation.
- Contributed to delivery of an integrated security system deployed across 1,000+ remote facilities.
- Managed development and improvement of technical projects, securing long-term service contracts through customer-focused delivery and ongoing support.
- Delivered intelligent transportation and fleet-management solutions combining surveillance cameras, enforcement capabilities, and fleet operations.
- Aligned technical solutions, requirements, and service delivery with international customers and partners.

MEGA PLANET, Inc. | Mechanical Engineer & Business Developer

- Contributed to the design of a portable identification bag for field use in remote areas.
- Helped develop a portable surveillance and security product for critical-infrastructure and coastal protection.
- Expanded business and customer engagement across the Gulf Area, United States, Europe, and Asia.
- Supported product development, marketing, and portfolio growth while coordinating cross-functional teams.

Al Otaiba Enterprise, Inc. | Project Engineer, Development Engineer & Assistant Business Developer

- Executed engineering projects and system upgrades involving precision cutting and drilling tools, networking, and system configuration.
- Reviewed proposed technical systems with the Systems Engineering Department and resolved implementation issues.
- Supported project planning, technical coordination, and contract renewals.

EDUCATION

Ph.D. Candidate in Computer Science and Engineering (Robotics and Machine Learning)
M.S., Artificial Intelligence

CERTIFICATIONS

- ROS: Perception, Navigation, and SLAM — Udemy
- AWS Academy Cloud Foundations — Amazon Web Services
- Business Analytics: Communication with Data — University of Illinois

LEADERSHIP, SERVICE & MEMBERSHIPS

- University of Bridgeport Institutional Biosafety Committee - Vice Chair
- University of Bridgeport - Robotics Club
- First Robotics Titans Robotics Team - Advisory board member
- American Institute of Aeronautics and Astronautics (AIAA) - Member
- American Society for Engineering Education (ASEE) - Member
- Upsilon Pi Epsilon (UPE) - Member