Ameer Helmi

PH.D. IN ROBOTICS

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Experienced and highly accomplished Ph.D. in Robotics, with extensive experience in robotics, artificial intelligence, and technical project management; coupled with expertise in leading transformations within healthcare systems and academic institutions. Proficient in mentoring and guiding cross-functional teams, providing strategic direction, and leveraging advanced technologies and AI to drive innovation. Skilled in developing and integrating cutting-edge software and hardware solutions for robotics and AI, with a focus in human-robot interaction. Recognized for outstanding dedication to customers, complex problem-solving abilities, and a track record of delivering and communicating impactful results.

Robotics • Artificial Intelligence • Machine Learning • Research & Development • Human-AI Interaction
Technical Project Management • Electronic Medical Records • Rapid Prototyping
Team Leadership & Mentorship • Software & Hardware Integration • Technical Consulting • Issue Resolution •
Training & Support • Cross-functional Collaboration

Technical Skills: Robot Operating System (ROS), Python, MATLAB, Linux,
Machine Learning, AI, 3D Printing, Arduino, Git, ROS2, C++, C#

Education

Doctor of Philosophy in Robotics
Oregon State University (June 2024) | GPA: 3.8/4.0
Relevant Coursework: Artificial Intelligence, Control Systems, Human-Robot Interaction, Human-Computer Interaction, Disability Studies, And Human Research Methods.

Bachelor of Science in Biomedical Engineering
University of Illinois (June 2013) | GPA 3.7/4.0

Professional & Continuing Education: C# and ASP.Net Certificate
University of Washington (June 2018)

Professional Experience

Lakeland Regional Health, Lakeland, FL   December 2024 - Present
Systems Analyst III

- Resolved up to 10 customer tickets per day with Ivanti Web Desk, implementing complex fixes for laboratory workflows.
- Developed change control and workflow processes to improve future implementations of additional clinics and laboratories.

Oregon State University, Corvallis, OR   June 2024 – August 2024
Faculty Research Assistant

- Mentored 6 summer students through Research Experience for Undergraduates program, guiding them in machine learning projects and technical content creation.
- Served as senior lab mentor, advising on study design and robot construction for 10 graduate students.

Oregon State University, Corvallis, OR   September 2019 – June 2024
Graduate Research Assistant

- Designed and built 5 assistive robot systems using a human-centered design process, integrating a TurtleBot2 base, Python3, LIDAR, ROS, behavior trees for autonomy, and 3D-printed multi-sensory hardware.

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- Developed affective computing machine learning models using a cost-effective thermal camera for automatic detection of affect changes in children with disabilities.
- Utilized Python and OpenCV to develop a region-of-interest tracker with an overhead camera sensor.
- Conducted 5 multi-month child-robot interaction studies in collaboration with physical therapists, studying the effects of an assistive robot on improving children's levels of physical activity.
- Extensive publication and presentation record to prestigious conferences and journals (ICRA, IROS, HRI).

Oregon State University, Corvallis, OR   September 2019 – June 2020
Teaching Assistant

- Collaborated with the teacher to develop 6 ROS2 assignments for graduate Introduction to Robotics course with 20 students.
- Demonstrated consistent and professional correspondence with students for undergraduate Intermediate Dynamics course with 100 students.
- Adapted course material for virtual teaching within one week and provided consistent guidance for undergraduate Introduction to Python course with 80 students.

Epic Boost, Seattle, WA   June 2013 – December 2018
Technical Consultant

- Spearheaded development of quality control application workflows for electronic health record system at 4 organizations, individualizing workflows by customer regulations and protocols.
- Directed a cross-functional team of 8 analysts as application manager in implementing multi-million-dollar electronic health record system at Yale New Haven Health.
- Managed a team of 5 analysts to develop and build unique EHR workflows at the University of California, Los Angeles, guiding team on workflow design and focusing on customer needs.

Epic, Verona, WI
Technical Services   June 2013 – August 2015

- Consistently delivered robust and rapid solutions for 200+ system issue logs as technical engineer for multiple organizations, including first Epic UK customer, Cambridge University Hospital.
- Worked directly with C-Suite executives during customer escalations, resolving critical system issues while preserving software integrity.
- Improved CUH laboratory result efficiency by 20% by developing integrated system workflows.
- Developed multiple software enhancements and programmed resolutions for 22 system bugs, maintaining system integrity and compliance with strict QA testing.

Earlier Career:

Undergraduate Research Assistant – University of Illinois at Chicago, Chicago, IL
Engineering Intern – Hospira, Chicago, IL