

# Monish Reddy Kotturu

508-333-2246 | [monishreddy.kotturu@student.uml.edu](mailto:monishreddy.kotturu@student.uml.edu) | [linkedin.com/in/monish-reddy-kotturu](https://www.linkedin.com/in/monish-reddy-kotturu) | [github.com/mokotturu](https://github.com/mokotturu)

## EDUCATION

### University of Massachusetts Lowell

*M.S. in Computer Science*

Lowell, MA

Sep. 2023 – May 2024

### University of Massachusetts Lowell

*B.S. in Computer Science, Minor in Mathematics; GPA: 3.823; Honors College; Dean's List*

Lowell, MA

Sep. 2020 – May 2023

## EXPERIENCE

### Undergraduate Research Assistant

Sep 2020 – Present

*Army Research Lab - Strengthening Teamwork for Robust Operations in Novel Groups*

*Lowell, MA*

- Created a 2D web game that simulates a human agent interaction game and examines the evolution of trust between human participants and agents of varying capabilities
- Automated the analysis of the study results by developing Python and MongoDB pipelining scripts that process recorded data
- Deployed over 30 variations with different game conditions on Heroku to conduct virtual experiments through Amazon MTurk and Prolific

### Undergraduate Research Assistant

Sep 2020 – Present

*Army Research Lab - Strengthening Teamwork for Robust Operations in Novel Groups*

*Lowell, MA*

- Worked with Professor Reza Ahmadzadeh in the PeARL lab to improve team performance in Multi-Agent Multi-Armed Bandit (MAMAB) teams
- Wrote programs in Python to run MAMAB simulations and generate graphs. Used parallel processing and a JIT compiler to speed up the simulations over 500x which allowed for faster and easier testing

### Frontend Web Developer intern

Jun 2021 – Sep 2021

*Kaizntree*

*Remote (Sydney, Australia)*

- Programmed GUI components using Vue.js that interact with a REST API in Django to retrieve and display information and provide inputs for the user to modify data in a web application
- Debugged existing components and designed a user experience to minimize user effort and time

## PROJECTS

### Medication Delivery Robot | ROS, OpenCV

March 2023 – April 2023

- Designed and implemented a medication delivery robot with a high level of autonomy that uses face detection and autonomous navigation to deliver medication to older adults in an assisted living facility

### Northeast Robotics Colloquium Website | HTML, Tailwindcss, JS, Leaflet, Vite

Jun 2022 – Oct 2022

- Created the website for NERC 2022, which is a research meeting, job-fair, and a show case for established and upcoming robot companies in the Northeast US and Canada
- Maintained up-to-date information about the event details such as schedule, location, registration, and more

## PUBLICATIONS

- Zahra Rezaei Khavas, Monish Reddy Kotturu, Russell Purkins, S. Reza Ahmadzadeh, Paul Robinette, "The Effect of Performance-Based Compensation on Crowdsourced Human-Robot Interaction Experiments," Journal of Software vol. 18, no. 3, pp. 117-129, 2023.
- Perkins, R., Khavas, Z. R., McCallum, K., Kotturu, M. R., & Robinette, P. (2022, December). The Reason for an Apology Matters for Robot Trust Repair. In International Conference on Social Robotics (pp. 640-651). Cham: Springer Nature Switzerland.

## TECHNICAL SKILLS

**Languages:** Python, HTML/CSS/JavaScript, C/C++, Java

**Frameworks:** React.js, Node.js, Tailwind CSS

**Developer Tools:** Git, VS Code, Vim, Visual Studio, Heroku

**Libraries:** NumPy, Matplotlib, jQuery