Angel Sylvester

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Education

2020 – **Ph.D., University of Minnesota,** Artificial Intelligence and Robotics.

2016 – 2020 **B.A., Macalester College,** Chemistry and Computer Science

Employment History

2020 – · · · · **Graduate Researcher,** University of Minnesota.

2021 – 2022 **Data Analyst Fellow,** SEISMIC.

2022 **CSCI 1133 Graduate Instructor,** University of Minnesota.

Awards and Achievements

2020-2021 **ADC Fellowship**, University of Minnesota

2019 **Datafest "Best in Show"**, Macalester College.

Clare Boothe Luce Scholar, Macalester College.

Research Publications

Journal Articles

1. J. Harwell, A. Sylvester, and M. Gini, "An empirical characterization of ODE models of swarm behaviors in common foraging scenarios," *Autonomous Robots*, Jul. 2023. DOI: 10.1007/s10514-023-10121-9.

Workshop Papers

1. A. Sylvester and M. Gini., "Facilitating real-time collaboration and learning in search environments for multi-robot systems via real-time evolutionary algorithm," ARMS Workshop at AAMAS, London, England, 2023.
2. A. Sylvester, E. Temesgen, N. Etori, and M. Gini., "Autonomy and dignity for elderly using socially assistive technologies," Workshop Assistive Robotics for Citizens at IROS 2023, Detroit, MI, 2023.
3. A. Sylvester, E. Temesgen, N. Etori, and M. Gini., "Ethical robot design considerations for people suffering from neurodegenerative disease," Workshop Geriatronics: AI and Robotics for Health & Well-Being in Older Age at IROS 2023, Detroit, MI, 2023.
4. A. Sylvester, J. Harwell, and M. Gini., "A robust model for predicting collective behavior in large robot swarms," Robot Swarms in the Real World Workshop at ICRA, 2021.

Presentations

1. A. Sylvester and M. Gini., "A dynamic biology driven evolutionary solution to emergent precursors to optimal behavior," poster at CRA-WP Grad Cohort Workshop, 2023.
2. A. Sylvester and M. Gini., "Enforcing real-time collaboration and learning in search environments for multi-robot systems," poster at MSI Research Computing Exhibition, 2023.

3 A. Sylvester, E. Temesgen, N. Etori, L. Lowmanstone, S. Boehler, and M. Gini., "Developing a patient-centered solution by addressing technology accessibility," video at ICRA Ethics Challenge, 2023.

4 A. Sylvester, "Exploring the role of classroom composition on student performance," SEISMIC Minnesota Week Exhibition, 2022.

Skills

Languages	English (fluent), Spanish (intermediate), Korean (basic).
Coding	Java, Python, R, SQL, XML/XSL, LaTeX, HTML, CSS, JavaScript, Typescript
Databases	Firebase, SQL
Machine Learning	tensorflow, pytorch, keras, scikit-learn
Frameworks	Ionic, Netlogo, ArGoS, Webots, Babylon.js, ROS

Miscellaneous Experience

Teaching/Mentoring Experience

2023 **SciMent Mentor**, University of Minnesota

2022 **Summer Computing Camp Instructor**, University of Minnesota

2021- **Graduate TA for CSCI 1133, 1103, 1933, and 2980**, University of Minnesota

References

Available on Request