# Angel Sylvester

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🌐 https://www.angel-sylvester.com/

## Education

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| 2020 – | 🔖 | **Ph.D., University of Minnesota,** Artificial Intelligence and Robotics. |
| 2016 – 2020 | 🔖 | **B.A., Macalester College,** Chemistry and Computer Science |

## Employment History

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| 2020 – ···· | 🔖 | **Graduate Researcher,** University of Minnesota. |
| 2024 | 🔖 | **Graduate Engineering (AI/ML) Intern,** Honeywell. |
| 2021 – 2022 | 🔖 | **Data Analyst Fellow,** SEISMIC. |
| 2021 – ···· | 🔖 | **Graduate TA for CSCI 1133, 1103, 1933, and 2980**, University of Minnesota |
| 2022 | 🔖 | **CSCI 1133 Graduate Instructor,** University of Minnesota. |

## Awards and Achievements

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| 2020-2021 | 🔖 | **ADC Fellowship**, University of Minnesota |
| 2019 | 🔖 | **Datafest "Best in Show"**, Macalester College. |
| | 🔖 | **Clare Boothe Luce Scholar**, Macalester College. |
| 2016-2020 | 🔖 | **DeWitt Wallace Distinguished Scholarship**, Macalester College. |

## Research Publications

### Publications

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/Working Papers

1. S. Barman, A. Sylvester, E. Temesgen, and M. Gini., "Multi-agent pathfinding using time-extended graphs using auctions," ARMS Workshop at AAMAS, Auckland, NZ, 2024.

2. 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.

3. 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.

4. 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.

5   J. Harwell, A. Sylvester, 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

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| Languages | English (fluent), Spanish (intermediate), Korean (basic). |
| Coding | Java, Python, C, C++, R, SQL, XML/XSL, LaTeX, HTML, CSS, JavaScript, Typescript |
| Databases | Firebase, SQL |
| Machine Learning | tensorflow, pytorch, keras, scikit-learn |
| High-Performance Computing (HPC) | SLURM, conda, Docker |
| Frameworks | Ionic, Netlogo, ARGoS, Webots, Babylon.js, ROS |

## Miscellaneous Experience

### Teaching/Mentoring Experience

2023   **SciMent Mentor**, University of Minnesota (earned Silver award and 3M Young Inventor Recognition at Minnesota State Science and Engineering Fair). `https://cse.umn.edu/cs/news/phd-student-angel-sylvesters-mentors-high-school-student`

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

## References

Available on Request