Oz Gitelson

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EDUCATION

Yale University, GPA: 3.98   Expected Graduation 05/2026
B.S./M.S. in Computer Science
Relevant Coursework: Full Stack Web Development, Intelligent Robotics, Human Computer Interaction, Algorithms, Data Structures and Programming Techniques, Introduction to Systems Programming & Computer Organization

TECHNICAL SKILLS

- **Computer Languages:** Python, C, C++, Java, JavaScript, Rust, SQL
- **Tools:** PyTorch, Pandas, NumPy, Git, ROS, Fusion 360, Flask, Firebase, AWS
- **Skills:** Machine Learning, Generative AI, Affective Computing, Data Structures and Algorithms, Robotics, CAD, Dataset Design, Embedded Programming, Web Development, UX Design

WORK EXPERIENCE

Yale University, New Haven, CT   02/2023-Present
Undergraduate Researcher – Social Robotics Lab
- Designed and implemented control architecture for a therapy robot being deployed in wellness clinics, hospitals, and schools, improving its maximum continuous runtime from <5 minutes to virtually unlimited
- Curated an audiovisual stress dataset with an inter-rater reliability of 0.85, indicating extremely high quality, and developed a late fusion stress detector which achieved a high accuracy of 86% on it.
- Engineered a behavior prediction system 1200% more accurate than the state-of-the-art

Yale Computer Society, New Haven, CT   09/2022-Present
Backend Lead (2023-Present)
- Developing backend for AI-enabled degree auditing platform for Yale students
- Coordinating high-performing development team made up of other undergraduates

Outer Labs, Bay Area, CA   06/2024-08/2024
AI Research Intern
- Developed a novel, model-agnostic method for encoding procedural knowledge into a self-improving LLM prompt
- Devised a proprietary approach for autonomous knowledge graph generation
- Investigated techniques for automatic semantic structuring of unstructured data sources

The Pennsylvania State University, University Park, PA   05/2021-11/2022
Research Assistant to Professor Ben Johnson
- Created natural language processing and data analysis system for tracking citation metrics across a Supreme Court opinion database consisting of over one million pages

Publications

In Submission

- Debasmita Ghose*, Michal Lewkowicz*, **Oz Gitelson**, David Dong, Jake Brawer, Marynel Vazquez, Brian Scassellati (2025), Planning for Human-Robot Collaboration using Critical Decision Points: Robots that Influence Humans to Increase Collaboration Efficiency, In *ACM/IEEE International Conference on Human-Robot Interaction (HRI), Melbourne, Australia*

Peer Reviewed Conferences

- Debasmita Ghose*, **Oz Gitelson***, Brian Scassellati (2024), Integrating Multimodal Affective Signals for Stress Detection from Audio-Visual Data, In *ACM International Conference on Multimodal Interaction (ICMI), San Jose, Costa Rica* (Acceptance Rate = 38%)