

EDUCATION

Binghamton University

B.Sc. in Integrative Neuroscience | Sociology (Minor)

Binghamton, NY

2019–2023

EXPERIENCE

Laboratory Technician / Manager

Look, Infer, Understand (LIU) Lab // PI: Shari Liu, Ph.D.

Johns Hopkins University

July 2023–Present

- Foundational lab organization.
- As the first lab manager / technician of our lab, I created and documented our lab standard analysis pipelines for (1) fMRI analysis and (2) looking time analysis, along with the corresponding umbrella IRB protocols.
- Administration and technical resources.
- I managed the lab budget, updated the lab website, organized lab events, recorded equipment inventory, submitted reimbursements for all lab members, and maintained the lab manual and project board. On the technical side, I provided programming assistance and error debugging for over 20 studies.
- Recruitment coordination.
- After taking over the responsibilities of our old research coordinator, I led a partnership with Port Discovery, a local children's museum, where we conduct experiments and recruit for future studies.
- Independent cognitive neuroscience research.
- Alongside with Dr. Shari Liu, I conducted two novel fMRI studies on (1) the relationship between the intuitive physics network and the multiple demand network in the brain, published in *Neuropsychologia*, and (2) the role of physical cognitive resources in social prediction.

Research Assistant

Binghamton Baby Lab // PI: Peter Gerhardstein, Ph.D.

Binghamton University

Jan 2022–June 2023

- Honors thesis and publication.
- I led a partnership with Dr. Victoria Pelak and Dr. Peter Gerhardstein where we assessed the validity of a survey used to characterize visual snow symptoms. This study was funded by the Visual Snow Initiative and published in *Frontiers of Neurology*. In doing so, I earned the Undergraduate Research Award and Steven W. Kovacs Memorial Award for my commitment to psychological research.
- Developmental study support.
- I conducted in-person eye tracking and EEG studies with children aged 3-9. I also assisted in programming these experiments, and presented these projects at university research conferences.

PUBLICATIONS

1. **Maione, S. M.**, and Liu, S. (2026). Distinct and shared neural resources for dynamic object processing and spatial working memory. *Neuropsychologia*, 232, 109561. [[OSF](#)] [[Paper](#)]
2. Kim, M., **Maione, S. M.**, and Liu, S. (In review). Shared neural representations of barriers to agents' actions and objects' motions. [[Pre-print](#)]
3. **Maione, S. M.**, Pelak, V.S., and Gerhardstein, P. (2025). Assessment of a Novel Patient Reported Outcome Measure for Visual Snow Syndrome: The Colorado Visual Snow Survey 2.0. *Frontiers in Neurology*, 16, 1664310. [[OSF](#)] [[Paper](#)]

CONFERENCE PRESENTATIONS

1. **Maione, S. M.**, Drissi, A., Liu, K., Kim., Liu, S. (2026). Social objects: Tracking agents relies on neural resources associated with dynamic social and physical processing. *Society for Philosophy and Psychology*, Baltimore, MD. [Poster]
2. **Maione, S. M.**, and Liu, S. (2024). Frontoparietal regions engaged in physical prediction are also involved in spatial working memory. *Conference on Cognitive Computational Neuroscience*, Boston, MA. [Conference abstract] [Poster]
3. Kim, M., **Maione, S. M.**, Drissi, A., Liu, S. (2024). Cortical regions preferentially engaged during social and physical processing represent obstacles to agent action and object motion. *Conference on Cognitive Computational Neuroscience*, Boston, MA. [Conference abstract]
4. Kim, M., **Maione, S. M.**, Gerhardstein, P. (2023). Perception through Visual Snow Syndrome: Faces, Scenes and Self-Reported Symptoms. *Binghamton University Psi Chi Fair*, Binghamton, NY.
(Undergraduate Research Award)
5. **Maione, S. M.**, Duggan, N., Gerhardstein, P. (2022). Changing Orientation Anisotropy Influenced by the Digital Age. *Binghamton University Psi Chi Fair*, Binghamton, NY.

SKILLS

- **Cognitive Neuro.:** fMRI, TMS/rTMS, EEG
- **Dev. Psychology:** Looking time, eye tracking
- **Data collection:** In-person, Connect, SONA
- **Software:** Google/Microsoft/Adobe suite

PROGRAMMING

- **R:** RMarkdown, tidyverse, lme4, ggplot2
- **Python:** Jupyter, singularity, Scikit-learn
- **Shell:** SLURM, unix cluster management
- **Matlab:** Psychtoolbox-3, GStreamer

SCHOLARSHIPS AND AWARDS

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|---|------|
| • Steven W. Kovacs Memorial Award [Link] | 2023 |
| • Binghamton University Undergraduate Research Award [Link] | 2023 |
| • Dr. Dominick A. and Susan G. Artuso Scholarships | 2022 |

OTHER WORK EXPERIENCE

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| • Emerging Leaders Program Mentor | 2022–2023 |
| <i>I provided a 90-minute, structured, weekly space for 13 newly matriculated students to develop professional skills and become acclimated to college life. Through this experience, I mentored these students through a partnership with the Binghamton Rescue Mission, a homeless shelter, and created care packages and presentations for residents.</i> | |
| • Supplemental Instruction Leader | 2021–2023 |
| <i>I created 60-minute, structured, weekly review sessions for an introductory psychology lecture, with attendance ranging from 20-135 students per session. Alongside review sessions, I connected students with campus resources and specific faculty to help students foster research experience and professional development.</i> | |
| • Pharmacy Technician | 2017–2023 |
| <i>I was a pharmacy technician and cashier throughout high school and college to pay for my educational expenses. Working in retail taught me a surprising amount of interpersonal skills to calmly and efficiently navigate high stress situations.</i> | |