Elizabeth Lee

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Education

Carnegie Mellon University *Sept. 2025 - Present*
Ph.D. Student in Neural Computation

Massachusetts Institute of Technology *Sept. 2019 - May 2024*
B.S. / M.Eng in Computer Science and Brain and Cognitive Sciences (Course 6-9) *GPA: 5.0/5.0*
Minor in Mathematics

Research Experience

Laboratory of General Intelligence and Computation *May 2026 - Present*
Carnegie Mellon University | Advisor: Saurabh Vyas

Lab for the Algorithmic Brain | Rotation Student *Jan. 2026 - May 2026*
Carnegie Mellon University | Advisor: Xaq Pitkow

Feather Lab | Rotation Student *Sept. 2025 - Jan. 2026*
Carnegie Mellon University | Advisor: Jenelle Feather

EvLab | Undergraduate Student Researcher *Feb. 2021 - June 2024*
MIT McGovern Institute | Advisor: Evelina Fedorenko

Nedivi Lab | Undergraduate Student Researcher *Jan. 2020 - Jan. 2021*
MIT Picower Institute | Advisor: Elly Nedivi

Papers

- Kim, H.S., **Lee, E.J.**, McPherson-McNato, M., Noyce A., Feather, J. *Investigating Invariances in Auditory Event Categorization with Model Metamers*. Cognitive Computational Neuroscience Proceedings Track (2026).
- Tuckute, G., **Lee, E.J.**, Ou Y., Fedorenko, E., Kay, K. *A two-dimensional space of linguistic representations shared across individuals*. Submitted, under review. biorxiv
- Tuckute, G.*, **Lee, E.J.***, Sathe, A., Fedorenko, E.. *A 3.5-minute-long reading-based fMRI localizer for the language network*. Imaging Neuroscience (2026). https://doi.org/10.1162/IMAG.a.1246
- Ozernov-Palchik, O.*, O'Brien, A.M.*, **Lee, E.J.**, Richardson, H., Romeo, R., Lipkin, B., Small, H., Capella, J., Nieto-Castanon, A., Saxe, R., Gabrieli, J. D.E., Fedorenko, E. *Precision fMRI reveals that the language network exhibits adult-like left-hemispheric lateralization by 4 years of age*. Nature Communications (2026). https://www.nature.com/articles/s41467-026-72916-5
- Kauf, C., Kim, H.S., **Lee, E.J.**, Jhingan, N., She, J.S., Taliaferro, M., Gibson, E., Fedorenko, E., *Linguistic inputs must be syntactically parsable to fully engage the language network*. biorxiv
- Park, J., Khan, S., Yun, D.H., Ku, T., Villa, K.L., **Lee, J.E.**, Zhang, Q., Park, J., Feng, G., Nedivi, E., Chung, K. *Epitope-preserving magnified analysis of proteome (eMAP)*. Science Advances (2021). https://www.science.org/doi/10.1126/sciadv.abf6589.

Posters / Talks

- **CO-AIR: Current Opinion on Audiovisual Integration and Reading**, *Speeded Reading Robustly Identifies the Language Network*, Virtual Presentation 2025.
- **Lee, E.J.**, Blank, I.A., Fedorenko, E., Tuckute, G. *Hippocampal versus cortical language processing: Similar selectivity profile, difference in tuning axis*. Presented at *Cognitive Computational Neuroscience 2024*.

Awards and Fellowships

- Sutherland-Merlino Fellowship (one recipient per year) **2025**
- Interdisciplinary Training in Computational Neuroscience *NIH T90/R90 Training Grant Awardee* **2025**
- Glushko Prize for Outstanding Undergraduate Research in Cognitive Sciences (one recipient per year) **2023**
- Eta Kappa Nu Electrical Engineering and Computer Science Honor Society **2023**
- Tau Beta Pi Engineering Honor Society **2023**
- BCS Undergraduate Academic Award **2021, 2022, 2023**
- International Science and Engineering Fair Finalist **2018, 2019**
- Siemens Competition in Math, Science, and Technology Grand Award Winner **2018**

Teaching Experience

- **6.4110** *Representation, Reasoning, and Inference in AI*, Teaching Assistant, Fall 2023, Course Website
- **6.100** *Introduction to CS and Programming in Python* and *Introduction to Computational Thinking and Data Science*, Lab Assistant, Spring 2023, Course Website
- **6.036** *Introduction to Machine Learning*, Lab Assistant, Spring 2022, Course Website

Industry Experience

Citadel | **Equity Quantitative Research (EQR)**
Full-time Quantitative Developer *July 2024 - Aug. 2025*

- Managed and built out libraries for creating and deploying containerized gRPC services through Docker and Kubernetes. Established end-to-end CI-CD pipelines allowing for faster iteration and built out automatic resource scaling to meet demands of heavy research workloads.

Quantitative Developer Intern *June 2023 - Aug. 2023*

- Built generic tooling for distributed tracing and structured logging using Python decorators and context-managers for a flexible, easy-to-use API interface. Integrated tracing into existing client APIs, data ETL pipelines, and Python gRPC services to gain more visibility into applications for identifying bottlenecks and troubleshooting issues.

Amazon | **Alexa Engagement and Revenue Optimization**
Software Development Engineer Intern *June 2021 - Aug. 2021*

- Constructed data pipeline using Amazon Managed Workflows for Apache Airflow and AWS CDK.

Outreach

Gelfand Summer Program *Instructor (2026)*

- Taught one week course introducing middle school students to topics in neuroscience.

MITxHarvard Women in AI *Vice President (2022-2023), Director of Outreach (2021-2022)*

- Organized events to foster community and promote mentorship amongst graduate and undergraduate students interested in artificial intelligence and machine learning.
- Taught workshops introducing concepts in the field of artificial intelligence dedicated to encouraging middle and high school students from under-represented backgrounds to pursue interests in math, science, technology and related fields.

MIT Brain and Cognitive Sciences Society *Executive Board Member (2020-2022)*

- Organized events for students in the brain and cognitive sciences majors dedicated to building community amongst undergraduates students.
- Coordinated mentorship program to pair underclassmen with upperclassmen mentors in the major.

MIT Science Olympiad *Administration Logistics Director (2020-2021), Exams Committee (2019-2020)*

- Organized 2020 and 2021 MIT Science Olympiad Tournament hosting over 2000 high school students.