Xinyue An

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EDUCATION

Northwestern University Sep 2022 – Present
Ph.D. candidate in Neuroscience

Emory University Aug 2019 – Jun 2022
B.S. Neuroscience & Behavioral Biology (summa cum laude), B.A. Computer Science

University of California, San Diego Sep 2018 – Jun 2019

RESEARCH EXPERIENCES

Northwestern University, Glaser Lab Chicago, IL
Principal Investigator: Joshua I. Glaser, Ph.D. June 2023 – Present

Emory University, Berman Lab Atlanta, GA
Principal Investigator: Gordon J. Berman, Ph.D. May 2021 – Jun 2022
Honors Thesis: Using deep-learning based approaches to quantify Drosophila behaviors.

- Presented a video analysis pipeline that incorporates an animal pose tracking tool, an autoencoder, and a dimensionality reduction technique to identify *Drosophila* behaviors in an unsupervised manner and characterize the optogenetic activation phenotypes of descending neurons.

Enhanced Learning and Instructional Technologies at Emory (ELITE) Atlanta, GA
Principal Investigator: Davide Fossati, Ph.D. Aug 2020 – Jun 2022
Research Topic: Automatic assessment of Turtle graphics with vector approach.

- Developed a java automated assessment tool for vector images (Turtle graphics) that quantifies and highlights differences between student answers and the answer key, that is readily employed as an auto-grader in introductory computer science courses.

PREPRINTS

Zimnik AJ, Cora Ames K, **An X**, Driscoll L, Lara AH, Russo AA, Susoy V, Cunningham JP, Paninski L, Churchland MM, Glaser JI (2024). "Identifying interpretable latent factors with Sparse Component Analysis." *bioRxiv*.

CONFERENCE ABSTRACTS

An X, Chowdhury RH, Blum KP, Miller LE, Glaser JI (2025). "Integration of corollary discharge and sensory feedback signals in somatosensory cortex." *Computational and Systems Neuroscience (Cosyne).*

An X, Chowdhury RH, Glaser JI (2024). "Dissociation of efference copy and afferent feedback signals in somatosensory cortex." *Computational and Systems Neuroscience (Cosyne).*

TALKS & POSTERS (by project)

Integration of corollary discharge and sensory feedback signals in somatosensory cortex
- Talk, Computational and Systems Neuroscience (Cosyne) 2025
- Talk, Computational Neuroscience Club, Northwestern 2025
- Poster, Society for Neuroscience (SfN) 2024
- Talk, Chicago Sensorimotor Consortium 2024
- Poster, Computational and Systems Neuroscience (Cosyne) 2024

Kinematic analysis of climbing initiations using limb tracking
- Poster, NUIN Admissions Poster Session, Northwestern 2023

Using deep-learning based approaches to quantify Drosophila behaviors
- Talk, Undergraduate Research Symposium, Emory 2022

HONORS & AWARDS

Cosyne Presenters Travel Grant 2025
Highest Honors Thesis in Neuroscience and Behavioral Biology, Emory 2022
Revelle College Provost Honors, UCSD 2019

TEACHING

Teaching Assistant, Fundamentals of Neuroscience, Northwestern	Winter, 2024
Teaching Assistant, Molecular and Cellular Processes Laboratory, Northwestern	Fall, 2023
Teaching Assistant, Artificial Intelligence, Emory	Spring, 2022

SKILLS

Programming: Python, MATLAB, Java, R, C
Language: English (bilingual proficiency), Chinese (native), Korean (elementary)