

Elizabeth Nemeti

Doctoral Student
Emory University

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Research Interests

Mobile Health: Ecological momentary assessment and speech processing for clinical applications.

Digital Biomarkers: Passive sensing and voice-based monitoring for mental health outcomes.

Fairness in AI: Responsible machine learning with attention to bias and equity in healthcare.

Education

Emory University, Atlanta, GA, USA

Since Aug 2022

Ph.D. Student, Departments of Computer Science & Biomedical Informatics

M.S., in Computer Science to be obtained en route

Advisor: [Prof. Selen Bozkurt](#)

Emory Women in Natural Sciences Fellow

University of Bristol, Bristol, UK

Aug 2019 - Jul 2022

B.Sc. School of Biological Sciences

Magna Cum Laude, First Division Second-Class Honours (2:1)

Advisor: [Prof. Tom Williams](#)

Capstone: Identifying Protist Biodiversity in Lake Malawi Using Environmental DNA and Phylogenetic Bioinformatics

Research Experience

Graduate Research Assistant @ BOZ Lab

P.I. Selen Bozkurt, Emory University

Since May 2025

Mental Health Prediction from Voice Diaries: Built an end-to-end ML pipeline to identify which voice and language features (acoustic, linguistic, and multimodal) best predict depression from naturalistic daily voice diaries collected via Fabla.

Graduate R.A. @ CAV Lab

P.I. Emily Wally, Emory University

May - Aug 2025

Neurodivergent-Inclusive Visualization: Conducted a scoping review examining visualization practices that support neurodivergent users, covering concept origination, search strategy design, and corpus curation.

Graduate R.A. @ Rathore Lab

P.I. Saima Rathore, Emory University

Jan - May 2025

Proteomic Analysis of Alzheimer's Pathology: Ran differential expression analysis and integrated CSF proteomics with PET imaging to identify early AD biomarkers.

**Graduate R.A. @ Next-Gen
Maternal-Infant Informatics Lab**

P.I. Yun Wang, Emory University

Aug - Dec 2024

Fetal MRI Subcortical Segmentation: Adapted the MAPSeg deep learning pipeline to extend subcortical brain segmentation from infant to fetal MRI for prenatal diagnostic applications.

**Graduate R.A. @ Neuroinformatics &
Intelligent Systems Lab**

P.I. Babak Mahmoudi, Emory University

Dec 2023 - Jan 2025

Automated GI Motility Quantification via Stomach MRI: Developed an automated pipeline integrating UNet segmentation, synthetic data generation, and motility quantification for real-time GI function analysis.

**Undergraduate R.A. @ Computational
Evolutionary Biology Lab**

P.I. Tom Williams, University of Bristol

Jul 2021 - Jan 2022

Protist Identification from Environmental DNA: Analyzed 151,000 eDNA samples to identify novel protists, advancing taxonomic classification and comparative genomics.

Publications [\[Google Scholar\]](#)

Peer-Reviewed Publications	
[MIE 2026] In Press	Voice Diaries as Digital Biomarkers: A Scoping Review Elizabeth Nemeti, Aravind Venkatachalam, Tricia Park, Deanna M. Kaplan, Selen Bozkurt <i>Medical Informatics Europe (MIE)</i> , 2026
[AAIC 2025]	Predicting longitudinal accumulation of tau pathology in a pre-clinical population using machine learning: Data from the A4 and LEARN Studies Melika Saadati, Elizabeth Nemeti , Saima Rathore <i>Alzheimer's Association International Conference (AAIC)</i> , 2025
[DDW 2025]	An automated segmentation pipeline for quantifying gastric motility in humans using 4D cine magnetic resonance imaging Elizabeth Nemeti , Sarper Yurtseven, Braden Kuo, Vitaly Napadow, Roberta Sclocco, Babak Mahmoudi <i>Digestive Disease Week (DDW)</i> , 2025

Manuscripts	
[In Review]	Daily Diaries as Measurement Instruments: Linguistic and Acoustic Design Considerations for Depressive Symptom Detection Elizabeth Nemeti , Lillian Ward, Hyeokhyen Kwon, Deanna M. Kaplan, Selen Bozkurt <i>Advances in Methods and Practices in Psychological Science (AMPSS)</i> , 2026
[In Review]	From Observation to Empowerment: A Systematic Review at the Intersection of Visualization and Neurodivergence Mengyu Chen, Yanan Da, Elizabeth Nemeti , Keke Wu, Emily Wall <i>EuroVis STARS</i> , 2026

Honors, Awards, & Fellowships

CompBio Asia Advanced Studies Workshop (NSF-funded) , Bangkok, Thailand	2025
2-week intensive training in AI, genomics, proteomics, structural biology, and molecular dynamics.	
Emory Kharen Fulton Diversity Graduate Award Nominee	2024
Emory BMI Department Graduate Student Award for Community Service	2024
Emory Women in Natural Sciences Fellowship	2023

Teaching

Teaching Assistant , Emory University	
CS 110 Computer Science Fundamentals	Fall 2024 & Spring 2025
CS 312 Computing, AI, Ethics and Social Theory	Fall 2023
K-12 Language Assistant , Colegio Los Olivos, Málaga, Spain	Spring 2019
Taught English immersion classes across multiple grade levels (K-12) as part of TEFL certification with Meddeas, including live-in host family tutoring.	

Services

Science Communication & Public Engagement	
Co-founder & President @ Biomedical Informatics Outreach Group Emory Since May 2023	Founded and led OpenBMI, a graduate student organization advancing BMI education for underserved STEM communities through public outreach events (Atlanta Science Festival 2023, 2025), campus programming, and organizational operations including treasury, risk management, and media presence.

Science Writer @ Bare Bones-STEM Emory

Since 2025

Science article writer for a graduate-level science communication initiative.

STEM Public Engagement Volunteer @ Association for Women in STEM
2023-2025

Partnered with AWIS to run educational outreach booths at science festivals and museums, showcasing international women's research achievements in BMI.

Interdisciplinary Coordinator @ Women in STEM Bristol
2020-2021

Co-led efforts to foster an inclusive STEM community by developing and coordinating educational and social events that increased student engagement and amplified the visibility of women in science.

Program Committee Member, Reviewer

PNAS Nexus (co-reviewer)

2026

Computing in Cardiology (**CinC**)

2023

Last updated: April 2026