Manishika Balamurugan

mbala@umich.edu | (402) 601-9030 | Ann Arbor, MI

Education

Bachelor of Science with Honors (GPA: 3.981)   **August 2023 - present**
Biopsychology, Cognition, & Neuroscience. Computer Science.
University of Michigan- Ann Arbor
Relevant Coursework: Behavioral Neuroscience. Cognitive Psychology. General Chemistry.
Molecular, Cellular, and Developmental Biology. Statistics and Data Analysis. Elementary
Programming Concepts. Programming and Data Structures. Discrete Mathematics.
Anticipated Graduation Date: May 2027

Lincoln High School*   **August 2019 - May 2023**
International Baccalaureate Program (GPA: 4.493)
Senior Thesis: *To what extent is prejudice developed in early childhood as a result of implicit racial bias?*
Senior Psychological Research Paper: *An Experiment Investigating the Effects of Conflicting Stimuli on Information Processing (Replication of Stroop, 1935)*
*Dual enrolled at the University of Nebraska-Lincoln (GPA: 4.0)   **August - December 2022**

Research

Regenerative Imaging Laboratory   **May 2025 - present**
Research Fellow, University of Pittsburgh
- Working under Dr. Mike Modo, conducting research to model the hippocampus and its connectivity using diffusion MRI data and tractography methods.

Computational & Cognitive Neuroscience Lab   **August 2024 - present**
Research Assistant, University of Michigan
- Working under Dr. Thad Polk, conducting research regarding neural dedifferentiation in healthy vs MCI older adults.
- Responsible for participant screening, behavioral data entry, MRI data processing using Freesurfer, MRS quality control.
- Led project on training and implementing an AI assistant into lab.
- Presented at Undergraduate Research Opportunity Symposium in April 2025.

Students Tackling Advanced Research (STAR) Program   **January 2023 - May 2024**
STAR Scholar
One of 30 students selected to receive structured mentoring from faculty and graduate student mentors aimed to prepare students for academic research and graduate school.

Technical Projects

Flight Price Prediction App
Streamlit app showcasing a machine learning model using scikit-learn to predict flight prices using historical data.

Awards

Rogel Award of Excellence Scholar
One of 75 students selected to receive full-ride scholarship for out-of-state students who are most likely to contribute significantly to the University of Michigan.

University Honors

Shining Student Tackling Advanced Research   **April 2024**
Awarded to STAR scholar who takes initiative in building their research skills.

Rising Student Tackling Advanced Research   **April 2024**
Awarded to STAR scholar who participates in community outreach to help promote equitable participation in the field of psychology.

	William J. Branstrom Freshman Prize	**March 2024**

William J. Branstrom Freshman Prize   **March 2024**
Awarded to first-year students who rank in the top five percent of their class.

Extracurriculars   **Nu Rho Psi**   **September 2024 - present**
University of Michigan Chapter of National Honors Society of Neuroscience.

Michigan Data Science Team   **January 2024 - present**
Project teams focused on real-world problem solving and collaborative analysis.

Work Experience   **Literacy Tutor**   **October 2023 - April 2024**
Bright Futures Schools in Ypsilanti, MI
Planned curricula for groups of students at different English levels to enhance literacy skills through one-on-one reading, comprehension problem sets, and encoding/decoding activities.

Skills   **Freesurfer, DSI-Studio**

C++, Python (NumPy, Pandas), R