# Brady M. Chisholm

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# **Professional Summary**

Early-career researcher with experience in neuroscience, data science, and computational modeling. Skilled in EEG data collection, statistical modeling (GAM, ICA, regression), and programming in Python, MATLAB, and R. Seeking experience in industry research and data science roles with opportunities for innovation and professional growth towards graduate school.

### Education

#### University of Minnesota, Minneapolis, MN

Sep 2023 – Aug 2025

Bachelor of Science in Psychology

Relevant Coursework: Regression and Correlated Data, Calculus I, Biopsychology

Gustavus Adolphus College, St. Peter, MN

Sep 2022 – May 2023

Research apprenticeship, grant-funded projects; Varsity Swim & Dive

# Research Experience

### Researcher / Research Assistant, UMN Neuroscience Department

Jan 2025 – Present

Cognitive and Systems Neuroscience Lab (Dr. Jean-Paul Noel)

- Designed and implement studies aimed at decoding decision making from neural activity
- Collect EEG data, implement EEG methods, analyze EEG data
- Applied computational analysis to large-scale neural datasets

#### Research Assistant, UMN Psychology Department

Dec 2023 – Aug 2025

Auditory Perception and Cognition Lab (Dr. Andrew Oxenham & Dr. Juraj Mesik)

- Designed and analyzed experiments using EEG and pupillometry to study listening effort
  - Built GAM and regression models to study auditory perception and fatigue
  - Co-authored publication and prepared ASA 2025 presentation

### Research Assistant, UMN Ecology, Evolution, and Behavior

Jun 2024 - Aug 2024

Animal Communication Lab (Dr. Mark Bee)

- Assisted in experiments with *Hyla* species; supported craniotomy procedures
- Collected and analyzed behavioral data

## **Publications and Posters**

**Analysis of Pupillometry Data** (2024) - Developed GAM models to examine fatigue effects in listening effort studies

The CodeR Sessions (2024–Present) - Created tutorials and open-source materials to teach R and data science methods

#### Awards & Grants

Undergraduate Research Opportunities Project Grant (\$2,100, 2024) Dean's First-Year Research and Academics Scholarship (\$900, 2024)

Desired the least test and treatment sensitivity (400, 201)

Presidential Research Grant, Gustavus Adolphus College (\$1,500, 2023)

#### Technical Skills

Programming: Python, R, MATLAB, HTML, Git/GitHub

Analysis: EEG, ICA, GAM, regression, ANOVA, data visualization Research: Experimental design, animal handling, data collection