




Serena Warner

Undergraduate researcher applying machine learning to model human identity and cognition for adaptive, accessible technologies.

 github.com/serenawarner |  www.linkedin.com/in/serena-warner-877647300 |  serenawarner.github.io

EDUCATION

The College of Wooster – B.A. in Computer Science, May 2026 (*GPA: 3.81*)

Relevant coursework: Machine Intelligence, Applied Statistics, Linear Algebra, Graph Theory and Combinatorics, Data Structures and Algorithms, Applied Integral Calculus, Applied Differential Calculus, Data Visualization

RESEARCH EXPERIENCE

Modeling Cognitive Personality Patterns for Adaptive Learning and Accessibility — The College of Wooster (*2025 – 2026, upcoming*)

Investigating how unsupervised learning on large-scale text data can reveal emergent personality and cognitive clusters to inform adaptive educational systems for neurodivergent learners.

- Engineered Python-based data pipelines and clustering models to identify personality-cognition clusters and explore their relationship to learning needs; manuscript in preparation with applications in accessibility technology.

Predicting Myers-Briggs Types with Cognitive Functions and Text Input — The College of Wooster (*Spring 2025*)

Developed supervised ML models (SVM, Logistic Regression) to classify cognitive functions from online forum posts, grounded in Jung and Beebe's cognitive function theory ([code repository](#)).

- Implemented in Python and R with scikit-learn, pandas, NumPy, and NLTK; achieved competitive multi-class classification accuracy.

Analyzing Risk Factors in Diabetes Diagnosis — The College of Wooster (*Fall 2024*)

Built logistic regression models in R to identify key lifestyle and health predictors of diabetes diagnosis from clinical datasets.

- Determined significant associations (e.g., high cholesterol, alcohol use) with potential implications for targeted prevention strategies.
- Delivered results with interpretable statistical outputs for non-technical audiences.

Predicting Rugby Match Outcomes with Machine Learning — The College of Wooster (*Fall 2024*)

Applied decision trees and other ML classifiers to model match outcomes from historical rugby data, achieving 75% predictive accuracy.

- Highlighted the adaptability of predictive modeling skills across sports analytics and other applied domains.
 - Focused on feature selection, evaluation metrics, and cross-domain transferability.
-

PUBLICATIONS & PRESENTATIONS

- Warner, S. (in prep). *Modeling Cognitive Personality Patterns for Adaptive Learning and Accessibility*. To be submitted, 2026.
 - Warner, S. *Modeling Cognitive Personality Patterns for Adaptive Learning and Accessibility*. Senior Independent Study Symposium, The College of Wooster, Wooster, OH, May 2026 (scheduled).
-

WORK & LEADERSHIP EXPERIENCE

STEM Zone Leadership Roles – Wooster, OH (*2023 – 2026*)

- Led STEM Zone events and managed social media presence to promote engagement across campus.
- Mentored 90+ students in Multimedia Computing, Scientific Computing, and Data Structures & Algorithms.
- Provided in-class support, graded assignments, and guided students in Python and Java programming.

Teaching Apprentice – Wooster, OH (*Fall 2024, Fall 2025*)

- Delivered guest lectures on technology's societal impact in FYSM-101 and supported student discussions.
- Assisted in labs for CSCI-102, helping students debug projects and prepare for exams during office hours.

Google Developer Student Club Vice President – Wooster, OH (*2025 – 2026, upcoming*)

- Organized coding workshops and peer-mentorship projects to build campus tech literacy.
- Coordinated hackathon preparation events and collaborative coding sessions.

Women's Club Rugby Secretary – Wooster, OH (*2025 – 2026, upcoming*)

- Managed team communications, scheduled matches, and supported coaching staff with logistics.
-

TECHNICAL SKILLS

Machine Learning & Data Science – Python, scikit-learn, TensorFlow, pandas, NumPy, R, NLTK

Programming Languages – Python, Java, C, C++, Go, JavaScript

Visualization & Analytics – Matplotlib, PIL, Data Visualization (R)

Development Tools – Git, Jupyter, LaTeX, VS Code, PyCharm, IntelliJ, Eclipse, CLion

AWARDS & HONORS

Dean's List (2022–2025) | Dean's Scholarship | Rindsfoos Scholarship | Alpha Alpha Alpha (First-Gen Honors Society) | Pi Mu Epsilon (Math Honors) | Delta Phi Alpha (German Honors)