# Serena Warner

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Undergraduate researcher focused on the intersection of machine learning and personality theory. Passionate about applying computational models to cognitive and identity-related phenomena.

### **EDUCATION**

The College of Wooster, Wooster, OH **B.A. in Computer Science**, Expected May 2026

- GPA: 3.811
- Relevant coursework: Machine Intelligence, Linear Algebra, Graph Theory and Combinatorics, Data Structures and Algorithms, Applied Integral Calculus, Applied Differential Calculus, Data Visualization

#### RESEARCH EXPERIENCE

**Senior Independent Study** (in progress): *Predicting Personality from Survey Data using Unsupervised Modeling* — The College of Wooster *Fall 2025 – Present* 

• Applying unsupervised models to explore patterns in personality survey data, aiming to identify emergent personality clusters beyond typological systems.

**Junior Independent Study**: Predicting Myers-Briggs Types with Cognitive Functions and Text Input — The College of Wooster
Spring 2025

• This Independent Study project applies supervised machine learning, specifically Support Vector Machines (SVM) and Logistic Regression, to classify Myers-Briggs personality types based on forum text. Instead of using the four-letter MBTI format, this project uses

cognitive function theory, as introduced by Carl Jung and further developed by John Beebe, to model six different function-based classification schemes.

**Diabetes Diagnosis Factors Analysis** — Applied Statistics, The College of Wooster *Fall 2024* 

• I analyzed a dataset using the Behavioral Risk Factor Surveillance System (BRFSS) collected by the Centers for Disease Control and Prevention (CDC) focused on analyzing which medical and lifestyle factors can impact having a diabetes diagnosis. Through logistic regression, I found that diabetes diagnosis has relationships with age, high blood pressure, high cholesterol, physical activity, heavy alcohol consumption, and income.

**Prediction Modeling for Union Rugby Match Results** — Machine Intelligence, The College of Wooster *Fall 2024* 

• Developed and evaluated multiple ML models to predict rugby match outcomes; decision tree model achieved highest performance with 75% accuracy.

### TECHNICAL SKILLS

**Github:** github.com/serenawarner

**Programming:** Python, R, Java, HTML/CSS (basic)

Libraries/Frameworks: scikit-learn, pandas, NumPy, Matplotlib, TensorFlow

**Tools:** Git, Jupyter Notebooks, LaTeX

### **WORK & LEADERSHIP EXPERIENCE**

STEM Success Initiative Intern – Wooster, OH

*Summer* 2025 – *Spring* 2026

• Chosen to lead STEM Zone events and social media representation.

STEM Zone Intern – Wooster, OH

Fall 2023 - Spring 2026

• Provided 1-on-1 support for 20+ students per semester in computer science topics, such as Python and Data Structures, adapting strategies based on individual learning needs

## **Teaching Apprentice** – Wooster, OH

Fall 2024, Fall 2025

- Provided in-class support and individual guidance to students during lectures and activities and held weekly office hours to assist students with course concepts, assignments, and exam preparation for CSCI-102 Introduction to Multimedia Computing with Professor Alex Nord and Professor Dan Palmer
- Selected as Teaching Apprentice for FYSM-10100 Technology in Society with Dr. Heather Guarnera (Fall 2025), supporting first-year students in academic and social transition to college.

## **Google Developer Student Club Vice President** – Wooster, OH

*Fall 2025 – Spring 2026* 

• Elected to lead campus GDSC chapter, focusing on peer mentorship, tech literacy workshops, and hands-on coding projects (*planned*)

## Women's Club Rugby Secretary – Wooster, OH

Fall 2025 – Spring 2026

• Will coordinate team logistics, communication, and match organization alongside coaching staff *(planned)* 

### **AWARDS & HONORS**

- Dean's List, *Fall 2022 Spring 2025*
- Dean's Scholarship, Rindsfoos Scholarship (2022-2025)
- Carolyn Krause End. Scholarship (2023-2025)
- Bentz Scholarship, Stephan Scholarship (2023-2024)
- Miller/Smith Scholarship, Class Of 1948 Scholarship (2022-2023)
- Alpha Alpha First Generation Honors Society, *Inducted Spring 2025*
- Pi Mu Epsilon Math Honors Society, *Inducted Spring 2025*
- Delta Phi Alpha German Honors Society, *Inducted Spring 2023*