

# JACKSON ESHBAUGH

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Bethlehem, PA — 18020, USA

## EDUCATION

- **Lafayette College** August 2023–May 2027  
*B.S., Computer Science* Easton, PA
  - GPA: 4.00/4.00
- **Lafayette College** August 2023–May 2027  
*A.B., French Language* Easton, PA
  - GPA: 4.00/4.00

## RESEARCH INTERESTS

### Topics

Machine Learning Interpretability   Computational Linguistics  
Theoretical Foundations of Artificial Intelligence

### Guiding Questions

How do we make neural networks more transparent?  
How do linguistic structure and semantics interact in multilingual NLP models?

## PUBLICATIONS & PREPRINTS



C=CONFERENCE, J=JOURNAL, P=PREPRINT, S=IN SUBMISSION, T=THESIS

- P.1   **Eshbaugh, J.** *Fidelity Isn't Accuracy: When Linearly Decodable Functions Fail to Match the Ground Truth.* 2025. [arXiv:2506.12176](#).
- S.1   **Eshbaugh, J.,** Tiwari, C., and Silveyra, J. *A Modular and Multimodal Generative AI Framework for Urban Building Energy Data: Generating Synthetic Homes.* 2025. Submitted to *Energy & Buildings*. [arXiv:2509.09794](#).

## POSTERS & PRESENTATIONS

- [1]   **Eshbaugh, J.** (Sep 2025). "Synthetic Homes: A Modular and Multimodal Generative AI Framework for Urban Building Energy Data." *Lafayette College Bicentennial Weekend Poster Session*, Easton, PA. [[poster](#)]

## EXPERIENCE

- **Department of Computer Science, Lafayette College**  August 2024 - Present  
*Teaching Assistant* Easton, PA
  - Assist professors with teaching duties by helping students during class meetings.
  - Hold two review sessions per week, covering course content.
  - Produce materials such as worksheets and presentations for sessions.
  - Praised by students as an outstanding teacher who cares and can explain complex things in ways that make sense.
  - More information on my [teaching page](#).
- **Department of Computer Science, Lafayette College**  June 2025 - Present  
*EXCEL Scholar* Easton, PA
  - Advisor: Dr. Jorge Silveyra
  - Conduct meaningful, novel research in machine learning.
  - Focus on applying ML concepts to the energy sector, employing computational techniques in novel ways.
  - Run experiments, draw conclusions, and write results.
  - More information on my [research page](#).


## SKILLS

- **Programming Languages:** Python, Java, JavaScript, C, ML
- **Machine Learning:** PyTorch, TensorFlow, NumPy
- **Other Tools & Technologies:**  $\text{\LaTeX}$

HONORS AND AWARDS

- **Marquis Scholarship**  
*Lafayette College*
    - Demonstrated intellectual curiosity in addition to superior academic achievement.
    - Recipients display the Marquis’ ideals of global citizenship, scholarly pursuits, leadership, and concern for others.
  - **Dean’s List**  
*Lafayette College*
    - Achieved a Semester GPA of 3.60 or higher.

May 2023




F23, S24, F24, S25


VOLUNTEER EXPERIENCE

- **Audio/Visual Specialist**  
*Hope Alliance Church*
    - Design and operate weekly worship slides and sermon visuals
    - Configure live stream and projection systems for services
    - Run slides and broadcast during live events
    - Troubleshoot technical issues quickly and independently
    - Maintain and reset the worship space after services
    - Apply skills in graphic design, live sound, and audiovisual tech
    - Serve faithfully by supporting worship through technical service
  - **Audio/Visual Specialist**  
*Lafayette DiscipleMakers Christian Fellowship*
    - Similar service to the above with no live stream component

July 2021 - Present



September 2023 - Present



CERTIFICATIONS

- **Deep Learning Specialization**

June 2025

ADDITIONAL INFORMATION

Languages Spoken

English (Native Tongue), French (Fluent; Professional Competency)

Interests

Music (Jazz Vocals, Trombone, Piano, Composition); Photography and Photo Editing; Videography and Video Editing