

## EDUCATION

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### University of Michigan

B.S. in Computer Science & Data Science (Double Major), Mathematics Minor, Expected Graduation: April 2025

Ann Arbor, MI

## RESEARCH EXPERIENCE

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### Institute for Software Integrated Systems at Vanderbilt University

Researcher (advisor: Prof. K Leach, Vanderbilt University)

Nashville, TN

On-site May - Jul 2023, remote until present

- Investigated error detection algorithm performance on human label noise
- Conducted an IRB-exempt human study on *Prolific* to assess the impact of time constraints on crowdworker accuracy
- Developed a Flask-based web interface for collecting participants' performance data, along with demographic and psychometric data through a Qualtrics survey
- Conducted statistical analysis using Mann-Whitney U tests and Kruskal-Wallis tests with post hoc analysis
- Developed a synthetic label-noising method based on human label noise patterns in CLIP embedding space

### Research Scholars Program at University of Michigan

Researcher (advisor: Mr. S Larson, DryvIQ)

Ann Arbor, MI

Aug 2022 - Apr 2023

- Conducted extensive re-annotation of document classification benchmarks RVL-CDIP and Tobacco3482, uncovering label error rates of 8.1% and 11.7%, respectively.
- Benchmarked ViT model on Tobacco3482, discovering that 35% of the model's errors were either valid alternative labels or images outside the dataset's categories.

### Undergraduate Research Opportunity Program (UROP) at University of Michigan

Research Assistant (advisor: Mr. S Larson, DryvIQ)

Ann Arbor, MI

Oct 2021 - Apr 2022

- Curated a 4,417-image digital document dataset to benchmark out-of-distribution performance in document classification
- Benchmarked convolutional and transformer-based models, revealing 15-30% performance drops on out-of-domain data
- Employed *Augraphy* to introduce scanner-like noise to digital documents, demonstrating that models were not merely overfitting to these artifacts in in-domain data but struggled with broader generalization

## TEACHING EXPERIENCE

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### EECS 487 - Natural Language Processing at University of Michigan

Teaching Assistant (lecturer: Dr. Laura Burdick)

Ann Arbor, MI

Aug - Dec 2023

- Designed and led interactive lab sessions using Jupyter Notebooks, introducing students to the Elizer chatbot
- Hosted regular and extra office hours before exams, providing one-on-one support to students needing additional help
- Actively engaged on *Piazza* class forum, delivering detailed and prompt responses to students' questions
- Teaching reviews: 4.8/5.0

## PUBLICATIONS

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- [1] **Robust Testing for Deep Learning using Human Label Noise**  
*ICSE DeepTest 2025 (to appear)*  
(G. Lim, S. Larson, K. Leach)
- [2] **Label Errors in the Tobacco3482 Dataset**  
*WACV VisionDocs 2025 (to appear)*  
(G. Lim, S. Larson, K. Leach)
- [3] **Evaluating Out-of-Distribution Performance on Document Image Classifiers**  
*NeurIPS Datasets & Benchmarks 2022*  
(S. Larson, G. Lim, Y. Ai, D. Kuang, K. Leach)
- [4] **On Evaluation of Document Classifiers using RVL-CDIP**  
*EACL Main Conference 2023*  
(S. Larson, G. Lim, K. Leach)
- [5] **Towards Fair Pay and Equal Work: Imposing View Time Limits in Crowdsourced Image Classification**  
*arXiv preprint, 2024*  
(G. Lim, S. Larson, Y. Huang, K. Leach)

## PUBLICATION LINKS

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- [1] <https://arxiv.org/abs/2412.00244v1>
- [2] <https://arxiv.org/abs/2412.13140>
- [3] <https://openreview.net/forum?id=uDlkiCI5N7Y>
- [4] <https://aclanthology.org/2023.eacl-main.195.pdf>
- [5] <https://arxiv.org/abs/2412.00260v1>