

LOGAN LAWRENCE

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✉ ◊ **in** ◊ loganlawrence.info

SUMMARY

I am a second-year PhD student at UMass Amherst advised by Grant Van Horn, where I study vision-language systems for **fine-grained zero/few-shot classification** and **question answering**. Before UMass, I was a **software engineer for four years** where I worked in **search engine design**.

PUBLICATIONS

[WACV 2026] *You May Speak Freely: Improving the Fine-Grained Visual Recognition Capabilities of Multimodal Large Language Models with Answer Extraction.*

LL, Oindrila Saha, Megan Wei, Chen Sun, Subhansu Maji, Grant Van Horn.

[ICCV 2025] *Generate, Transduct, Adapt: Iterative Transduction with VLMs.*

Oindrila Saha, LL, Grant Van Horn, Subhansu Maji.

[EMNLP 2023] *Efficient Transformer Knowledge Distillation: A Performance Review.*

Nathan Brown, Ashton Williamson, Tahj Anderson, LL.

[Preprint 2025] *Direct-Scoring NLG Evaluators Can Use Pairwise Comparisons Too.*

LL, Ashton Williamson, Alexander Shelton.

EXPERIENCE

Research Assistant

September 2024 - Present

University of Massachusetts Amherst

Amherst, MA

- Conducted ablations, sensitivity analysis, visualizations, and paper writing for a recently accepted ICCV submission on improving the fine-grained classification performance of pre-trained vision-language models. Found that utilizing transductive methods to select and pseudo-label examples from the test set increased the accuracy of zero-shot and few-shot CLIP in fine-grained domains by 8.6% and 4.0%, respectively.
- Leading further work in evaluating the fine-grained classification abilities of Multimodal LLMs (MLLMs), showing that accuracy/mAP in many-way (hundreds to thousands) classification/retrieval tasks increases substantially when using LLMs as choice extractors with constrained decoding. Recently accepted to WACV26!

Senior Data Engineer

June 2020 - September 2024

Saifr, Fidelity Investments

Boston, MA

- Project lead for GOST Crawl, a proprietary search engine for indexing derogatory web content. To date, GOST Crawl has indexed over 23 billion webpages, totaling in ~4 petabytes of uncompressed HTML. It is a highly-scalable, highly-available ETL pipeline and storage system hosted in AWS which houses several machine learning models for tasks such as topic modeling, sentiment prediction, and Named Entity Recognition (NER).
- Research Sponsor for the Clemson University School of Computing. Managed 4 teams of Computer Science seniors to create state-of-the-art methods for NER and entity-centric summarization on long range text used within GOST Crawl. Supervised a paper on the interplay between knowledge distillation and efficient attention patterns (up to 4096 tokens) with respect to model inference costs, which was accepted to EMNLP 2023.
- Science Team lead. Conducted production-impacting experiments on NER, topic modeling, summarization, and Question Answering. Contributed to the methodology of almost all experiments conducted by FTE Science members. Contributed to hiring of 10 employees and planned priorities for the Science team.
- Lead developer for a contracted web forum stock market data and sentiment product. Created an AWS ETL pipeline which delivers over 100k Reddit, Twitter, and Chan articles daily, detects mentioned stock tickers, predicts market sentiment, and aggregates to a internet-wide market sentiment via SFTP.
- Previously Giant Oak Inc., acquired in February 2024 by Fidelity Investments.

EDUCATION

Ph.D., Computer Science , University of Massachusetts Amherst	<i>Present</i>
M.S., Electrical and Computer Engineering , University of California San Diego	June 2021
B.S., Computer Science , Rice University	May 2019
B.S., Electrical Engineering , Rice University	May 2019