Michael J. Ryan

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🌐 http://michryan.com/   ○ XenonMolecule

Education

2023 – 2025*	**M.Sc. Computer Science, Stanford University** Advised by: Dr. Diyi Yang Research: Natural Language Processing (NLP), Large Language Models (LLMs) *Expected Graduation: June 2025
2019 – 2023	**B.Sc. Computer Science, Georgia Institute of Technology** Advised by: Dr. Wei Xu Research: Natural Language Processing (NLP), Text Simplification, Fairness Thesis title: *A Survey of Non-English Parallel Corpora for Text Simplification*

Research Experience

2023 – Present	**Social and Language Technologies (SALT) Lab** *Dr. Diyi Yang, Stanford University*
2021 – 2023	**NLP X Lab** *Dr. Wei Xu, Georgia Institute of Technology*

Industry Experience

May 2022 – August 2022	**Software Engineering Intern, Microsoft** *Windows Servicing and Delivery Operating System Security Team* Designed and programmed static analysis tool in C++ for identifying security vulnerabilities throughout Windows OS.
May 2021 – August 2021	**Software Engineering Intern, Microsoft** *Windows Servicing and Delivery Toolkit Team* Updated tooling for porting Windows Updates across versions to run as serverless Azure functions.
May 2020 – August 2020	**Software Engineering Intern, Uber** *New Modalities (NeMo) Team* Implemented end-to-end testing service in GoLang for bike, scooter, and moped rentals using virtual vehicles.

Research Publications

Conference Proceedings

1. **M. J. Ryan**, T. Naous, and W. Xu, "Revisiting non-English text simplification: A unified multilingual benchmark," in *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, A. Rogers, J. Boyd-Graber, and N. Okazaki, Eds., Toronto, Canada: Association for Computational Linguistics, Jul. 2023, pp. 4898–4927. 🔗 DOI: 10.18653/v1/2023.acl-long.269.
🏆 **Outstanding Paper Honorable Mention**

2. A. Chung, D. Y. Kim, E. Kwok, **M. J. Ryan**, E. Tan, and R. Gamadia, "Cloud computed machine learning based real-time litter detection using micro-uav surveillance," in *2018 IEEE MIT Undergraduate Research Technology Conference (URTC)*, 2018, pp. 1–4. 🔗 DOI: 10.1109/URTC45901.2018.9244800.

Preprints

1. T. Naous, **M. J. Ryan**, A. Lavrouk, M. Chandra, and W. Xu, *Readme++: Benchmarking multilingual language models for multi-domain readability assessment*, 2023. arXiv: 2305.14463 [cs.CL].

2. T. Naous, **M. J. Ryan**, A. Ritter, and W. Xu, *Having beer after prayer? measuring cultural bias in large language models*, 2023. arXiv: 2305.14456 [cs.CL].

Talks

2023   **A Survey of Non-English Parallel Corpora for Text Simplification**
Georgia Tech Undergraduate Research Symposium

Awards and Achievements

2023   **Outstanding Paper Honorable Mention**, ACL 2023.

        Course Assistanceship Funding, Stanford University.

2022   **Distinction in Research**, Georgia Tech Honors Program.

        Outstanding Undergraduate TA for Interactive Computing, Georgia Tech Center for Teaching and Learning.

2019-23   **Dean's List**, Georgia Tech.

Teaching Experience

Winter 2024   **CS124: From Languages to Information**
Dr. Dan Jurafsky, Stanford University

Fall 2023   **CS221: Artificial Intelligence Principles and Techniques**
Dr. Percy Liang, Dr. Dorsa Sadigh, Stanford University

2021 – 2022   **CS3600: Introduction to Artificial Intelligence (Head TA)**
Dr. Mark Riedl, Dr. James Rehg, Georgia Institute of Technology

Open Source Software/Data

MultiSim Benchmark ⊙ XenonMolecule/MultiSim
The MultiSim benchmark is a growing collection of text simplification datasets targeted at sentence simplification in several languages. Currently, the benchmark spans 27 resources in 12 languages.

DSPy Signature Optimizer ⊙ StanfordNLP/DSPy
A teleprompter for DSPy which optimizes the signatures in a program by having a language model iteratively improve the prompt through trial and error.

Service

2020 – 2022   **GT Honors Program Application Review Committee**

              Bits of Good Web Development for Atlanta Non-profit Organizations