

Michael J. Ryan

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 ☞ XenonMolecule 🐦 michaelryan207

Education

Stanford University <i>Ph.D. in Computer Science</i>	<i>Sept 2025 – Jun 2029</i>
Stanford University <i>M.Sc. in Computer Science</i>	<i>Sept 2023 – Jun 2025</i>
<ul style="list-style-type: none"> ◦ GPA: 4.115/4.0 ◦ Advised by: Dr. Diyi Yang 	
Georgia Institute of Technology <i>B.Sc. in Computer Science</i>	<i>Sept 2019 – May 2023</i>
<ul style="list-style-type: none"> ◦ GPA: 3.96/4.0 ◦ Advised by: Dr. Wei Xu ◦ Thesis title: <i>A Survey of Non-English Parallel Corpora for Text Simplification</i> 	

Awards and Achievements

2024	Best Social Impact Paper Award , ACL 2024 Outstanding Project Award , CS224N Natural Language Processing with Deep Learning Best Project Award , CS330 Deep Multi-task and Meta Learning Top 5% CA in Stanford CS Department (awarded twice) , CS221 Artificial Intelligence Principles and Techniques
2023	Outstanding Paper Honorable Mention , ACL 2023 Guaranteed 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

Academic Research Experience

DSPy Optimizers Team <i>Dr. Chris Potts, Omar Khattab, Stanford University</i>	<i>Stanford, CA</i> <i>Dec 2023 – Present</i>
Social and Language Technologies (SALT) Lab <i>Dr. Diyi Yang, Stanford University</i>	<i>Stanford, CA</i> <i>Sept 2023 – Present</i>
NLP X Lab <i>Dr. Wei Xu, Georgia Institute of Technology</i>	<i>Atlanta, GA</i> <i>Jan 2021 – Sept 2023</i>

Industry Research Experience

Research Intern, Snowflake <i>Dr. Daniel Campos, Danmei Xu</i>	<i>San Mateo, CA</i> <i>Jun 2024 – Sept 2024</i>
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Industry Experience

Software Engineering Intern, Microsoft <i>Windows Servicing and Delivery: Operating System Security Team</i>	<i>Redmond, WA</i> <i>May 2022 – Aug 2022</i>
<ul style="list-style-type: none"> ◦ Designed and programmed a static analysis tool in C++ for identifying security vulnerabilities throughout Windows OS. 	
Software Engineering Intern, Microsoft <i>Windows Servicing and Delivery: Toolkit Team</i>	<i>Virtual</i> <i>May 2021 – Aug 2021</i>

- Updated tooling for porting Windows Updates across versions to run as serverless Azure functions.

Software Engineering Intern, Uber
New Modalities (NeMo) Team

Virtual
May 2021 – Aug 2021

- Implemented end-to-end testing service in GoLang for bike, scooter, and moped rentals using virtual vehicles.

Publications and Pre-Prints

- ACL 2025 [SynthesizeMe! Inducing Persona-Guided Prompts for Personalized Reward Models in LLMs](#) [↗](#).
MJ Ryan, O Shaikh, A Bhagirath, D Frees, W Held, D Yang
- ACL 2025 [Mind the Gap! Static and Interactive Evaluations of Large Audio Models](#) [↗](#).
M Li*, WB Held*, **MJ Ryan**, K Pipatanakul, P Manakul, H Zhu, D Yang
*Equal Contribution
- ACL 2025 [Distilling an End-to-End Voice Assistant Without Instruction Training Data](#) [↗](#).
W Held, M Li, **MJ Ryan**, W Shi, Y Zhang, D Yang
- ARXIV 2025 [GEPA: Reflective Prompt Evolution Can Outperform Reinforcement Learning](#) [↗](#).
LA Agrawal, S Tan, D Soylu, N Ziemis, R Khare, K Opsahl-Ong, A Singhvi, H Shandilya, **MJ Ryan**, M Jiang, C Potts, K Sen, AG Dimakis, I Stoica, D Klein, M Zaharia, O Khattab
- ARXIV 2025 [AudioJudge: Understanding What Works in Large Audio Model Based Speech Evaluation](#) [↗](#).
P Manakul*, WH Gan*, **MJ Ryan**, AS Khan, W Sirichotedumrong, K Pipatanakul, W Held, D Yang
*Equal Contribution
- ARXIV 2025 [EnronQA: Towards Personalized RAG over Private Documents](#) [↗](#).
MJ Ryan, D Xu, C Nivera, D Campos
- ARXIV 2025 [LangProBe: a Language Programs Benchmark](#) [↗](#).
S Tan, LA Agrawal, A Singhvi, L Lai, **MJ Ryan**, D Klein, O Khattab, K Sen, M Zaharia
- EMNLP 2024 [Optimizing Instructions and Demonstrations for Multi-Stage Language Model Programs](#) [↗](#).
K Opsahl-Ong*, **MJ Ryan***, J Purtell, D Broman, C Potts, M Zaharia, O Khattab
*Equal Contribution
- EMNLP 2024 [Towards Massively Multi-Domain Multilingual Readability Assessment](#) [↗](#).
T Naous, **MJ Ryan**, A Lavrouk, M Chandra, W Xu
- ACL 2024 [Unintended Impacts of LLM Alignment on Global Representation](#) [↗](#).
MJ Ryan, W Held, D Yang
- ACL 2024 [Having Beer After Prayer? Measuring Cultural Bias in Large Language Models](#) [↗](#).
T Naous, **MJ Ryan**, A Ritter, W Xu
🏆 **Best Social Impact Paper Award**
- ACL 2023 [Revisiting non-English Text Simplification: A Unified Multilingual Benchmark](#) [↗](#).
MJ Ryan, T Naous, W Xu
🏆 **Outstanding Paper Honorable Mention**
- MIT IEEE
URTC 2018 [Cloud Computed Machine Learning Based Real-Time Litter Detection Using Micro-UAV Surveillance](#) [↗](#).
A Chung, DY Kim, E Kwok, **M Ryan**, E Tan, R Gamadia

Talks and Presentations

Title:	DSPy: Prompt Optimization for LM Programs
Jun 2025	Trail of Bits
Jan 2025	JPMorgan Chase
Nov 2024	EMNLP 2024

Sep 2024	Transformers at Work 2024
Sep 2024	Bay Area AI
Sep 2024	Snowflake
Jul 2024	UC Berkeley LLM Meetup
Title:	The Unintended Consequences of Preference Tuning LLMs
Sep 2024	The Digitalist Papers: Artificial Intelligence and Democracy in America (Stanford University)
Feb 2024	Carnegie Mellon University - Qatar
Jan 2024	Snowflake
Title:	A Survey of Non-English Parallel Corpora for Text Simplification
Apr 2023	Georgia Tech Undergraduate Research Symposium

Press Coverage

Nov 2024	Teaser: Unintended Impacts of Alignment on Global Representation Stanford AI Lab Blog
Aug 2024	The Challenge of Aligning AI ChatBots Stanford HAI Blog
Jul 2024	An AI walks into a bar... Can artificial intelligence be genuinely funny? BBC
Jun 2024	MIPRO: A Novel Optimizer that Outperforms Baselines on Five of Six Diverse Language Model LM Programs Using a Best-in-Class Open-Source Model (Llama-3-8B) by 12.9% accuracy MarkTechPost
Mar 2024	LLMs exhibit significant Western cultural bias, study finds VentureBeat

Open Source Software/Data

SynthesizeMe! [SALT-NLP/SynthesizeMe](#) [GitHub](#)

SynthesizeMe is an algorithm for creating personalized reward models from a few prior pairwise interactions with a chatbot. The library introduces a general abstraction for personalized reward models.

DSPy MIPROv2 Optimizer [StanfordNLP/DSPy](#) [GitHub](#)

The MIPROv2 optimizer for DSPy improves all the prompts in a multistage LM program by proposing several instruction rewrites and demonstrations and using a bayesian optimization to find the optimal combination.

AskReddit Countries Dataset [SALT-NLP/unintended-impacts-of-alignment](#) [GitHub](#)

The AskReddit Countries Dataset contains 554 question/answer templates collected from r/AskReddit for asking questions *about* different countries. Example: "Which country has the best food?" Such templated questions can be used to measure LLM and Reward Model opinions about countries.

MultiSim Benchmark [XenonMolecule/MultiSim](#) [GitHub](#)

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.

CAMeL Dataset [TarekNaous/camel](#) [GitHub](#)

CAMeL (Culture Appropriateness Measure set for LLMs) is a collection of prompts and culturally relevant entities that measure LLMs' biases toward particular cultures. Specifically, the original version of CAMeL measures Arabic vs. Western bias.

Teaching Experience

Sp 2024	CS221: Artificial Intelligence Principles and Techniques (Head CA) <i>Dr. Nima Anari, Dr. Moses Charikar, Dr. Sanmi Koyejo, Stanford University</i>
Wi 2024	CS124: From Languages to Information <i>Dr. Dan Jurafsky, Stanford University</i>
Fa 2023	CS221: Artificial Intelligence Principles and Techniques <i>Dr. Percy Liang, Dr. Dorsa Sadigh, Stanford University</i>
2021-23	CS3600: Introduction to Artificial Intelligence (Head TA) <i>Dr. Mark Riedl, Dr. James Rehg, Georgia Institute of Technology</i>

Service

2025	EMNLP 2025 Reviewer ACL 2025 SRW Reviewer
2024	TSAR 2024 @ EMNLP Reviewer
2020-22	GT Honors Program Application Review Committee Bits of Good Web Development for Atlanta Non-profit Organizations