# Vanya Peter Cohen

#### Education

2021-Now **Ph.D. in Computer Science**, The University of Texas at Austin.

O Advised by Ray Mooney.

O Expected Graduation: 05/26

2017-2018 M.Sc. in Computer Science, Brown University, Providence, RI.

O Co-advised by Stefanie Tellex and George Konidaris.

2013-2017 B.Sc. in Computer Science, Brown University, Providence, RI.

# Research Experience

2021-Now Machine Learning Research Group - UT Austin

Ph D. Student

Focus Areas: Grounded natural language processing, reinforcement learning, robotics;

Language-driven agents interacting in complex environments.

2020-Now Blackbird.AI

AI Scientist '24 & Consultant/ML Engineer '20-'23.

Focus Areas: Multimodal agents for information retrieval, embeddings.

2019-2020 Luminoso Technologies Inc.

Machine Learning Engineer.

Focus Areas: Language models for semantic networks; ConceptNet.

2017-2019 Humans to Robots Lab – Brown University

Research Assistant; Advised by Stefanie Tellex and George Konidaris.

Focus Areas: Language instruction following for manipulation, human-robot interac-

tion, language grounding.

2016-2017 Brown University Graphics Lab

Undergraduate Research Assistant; Advised by Andy van Dam.

Focus Areas: Collaborative gesture & multi-touch user interfaces.

## Honors & Awards

2023 Phi Kappa Phi Honor Society

Inducted for academic excellence during Ph.D. program.

## Peer-Reviewed Academic Publications

TMLR 2024 Compositional Instruction Following with Language Models and Reinforcement Learning

Vanya Cohen\*, Geraud Nangue Tasse\*, Nakul Gopalan, Steven James, Matthew Gombolay, Ray Mooney, Benjamin Rosman

Transactions on Machine Learning Research (TMLR), 2024

EMNLP	CaT-Be	nch:	Benchmarking	Language	Model	Understanding	of

2024 Causal and Temporal Dependencies in Plans

Yash Kumar Lal\*, **Vanya Cohen\***, Nathanael Chambers, Niranjan Balasubramanian, Raymond Mooney

Conference on Empirical Methods in Natural Language Processing (EMNLP), 2024

IJCAI A Survey of Robotic Language Grounding: Tradeoffs Between Sym-Survey Track bols and Embeddings

2024 Vanya Cohen\*, Jason Xinyu Liu\*, Raymond Mooney\*, Stefanie Tellex\*, David Watkins\*
International Joint Conference on Artificial Intelligence: Survey Track (IJCAI: Survey Track), 2024

ICRA 2024 CAPE: Corrective Actions from Precondition Errors using Large Language Models

Shreyas Sundara Raman, **Vanya Cohen**, Ifrah Idrees, Eric Rosen, Ray Mooney, Stefanie Tellex, David Paulius

IEEE International Conference on Robotics and Automation (ICRA), 2024

IROS 2019 Grounding Language Attributes to Objects using Bayesian Eigenobjects

Vanya Cohen\*, Benjamin Burchfiel\*, Thao Nguyen\*, Nakul Gopalan, Stefanie Tellex, George Konidaris

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2019

# Non-Archival Publications & Preprints

ACL 2023 Using Planning to Improve Semantic Parsing of Instructional Texts

Workshop Vanya Cohen, Raymond Mooney

Workshop on Natural Language Reasoning and Structured Explanations at ACL, 2023

CoRL 2022 End-to-End Learning to Follow Language Instructions with Compo-Workshop sitional Policies

**Vanya Cohen\***, Geraud Nangue Tasse\*, Nakul Gopalan, Steven James, Ray Mooney, Benjamin Rosman

Workshop on Language and Robotics at the Conference on Robot Learning (CoRL), 2022

NeurIPS Planning with Large Language Models via Corrective Re-Prompting

2022 Shreyas Sundara Raman, **Vanya Cohen**, Eric Rosen, Ifrah Idrees, David Paulius, Workshop Stefanie Tellex

Foundation Models for Decision Making Workshop at NeurIPS, 2022

AAAI-FSS Learning to Follow Language Instructions with Compositional 2021 Policies

**Vanya Cohen\***, Geraud Nangue Tasse\*, Nakul Gopalan, Steven James, Matthew Gombolay, Benjamin Rosman

AI-HRI Symposium at AAAI Fall Symposium Series (AAAI-FSS), 2021

NeurIPS OpenGPT-2: Replicating a 1.5 Billion Parameter Language Model

2019 Aaron Gokaslan\*, Vanya Cohen\*, Ellie Pavlick, Stefanie Tellex

Workshop NeurIPS NewInML Workshop, 2019

Invited Articles

# XRDS 2020 OpenGPT-2: Open Language Models and Implications of Generated Text

Vanya Cohen, Aaron Gokaslan

XRDS: Crossroads, The ACM Magazine for Students, Fall 2020

# Speaking & Interviews

#### Hack@Brown Brown University Hackathon Alumni Panelist

2024 Invited speaker for the alumni panel at Brown's annual hackathon.

## Wired OpenAI Said Its Code Was Risky. Two Grads Re-Created It Anyway.

August 2019 Interviewed by Tom Simonite.

# Other Work Experience

#### 2017-2018 National Bureau of Economic Research - UCLA/Brown

Part-time Research Engineer.

Developed AWS web-scapers and parsers to construct large-scale datasets of financial disclosures for an econometrics research team.

#### Summer **TripAdvisor**, Palo Alto, CA

2016 Software Engineering Intern (Full-stack iOS Developer).

Optimized iOS map features, cutting load times by 50%, and redesigned travel guides to boost user engagement.

## Professional Activities

### Workshop Organization

- NeurIPS Co-Organizer for NewInML: A Workshop for Newcomers to Machine
  - 2020 Learning at NeurIPS 2020
- Workshop Zhen Xu (UPSaclay), Vanya Cohen, Shruti Mishra (Harvard), MingYu Lu (UW)

#### Reviewer

- 2025- Association for Computational Linguistics (ACL) Rolling Review (ARR)
- 2025- International Joint Conference on Artificial Intelligence: Survey Track (IJCAI: Survey Track)
- 2024- Robotics: Science and Systems (RSS)
- 2023 International Conference on Robotics and Automation (ICRA)

### University Service

2022-2024 Organized the Connecting Language and Machine Perception (CLAMP) Reading Group, bringing together students and faculty from NLP, robotics, CV, linguistics, and CogSci to discuss recent grounded language processing papers.