## ANDREW KOULOGEORGE

22 Bridlewood Road • Northbrook, IL • 847-204-3005 • andrewkoulogeorge@gmail.com • Github • linkedin

### **EDUCATION**

## Carnegie Mellon University, Pittsburgh, Pennsylvania

December 2025

• Masters of Science: Computer Science

## Dartmouth College, Hanover, NH

**June 2024** 

- Bachelor of Arts: Mathematics & Computer Science
- Grade: 3.98; Summa Cum Laude; Phi Beta Kappa
- Relevant Coursework: Randomized Algorithms (Grad), Deep Learning Robustness, Machine Learning, Artificial Intelligence,, Computer Architecture, Object Oriented Programming, Data Mining, Linear Algebra, Real Analysis (Honors), Partial Differential Equations (Grad), Abstract Algebra (Honors), Econometrics

#### PROFESSIONAL EXPERIENCE

# Harpin AI, Bend, OR

Summer 2024

Applied Scientist Intern

• Researching the application of Large Language Models (LLMs) to Harpin's core Identity Resolution product to improve customer identity matching and profile hydration

## Minds, Machines, and Society Lab, Hanover, NH

March 2023 - June 2024

Large Language Model Researcher: Advised by Soroush Vosoughi

- Proposed a novel framework, Faithful Alignment (FA), to improve the interpretability of Prototypical LLMs by ensuring faithful model explanations. Demonstrated FA maintains model performance across GLUE benchmark
- Applied prompt engineering to Chat-GPT to construct The ImplicitStereo Dataset, a novel dataset used to investigate stereotype representation and detection in pre-trained LLMs

## Dartmouth Computer Science Department, Hanover, NH

**January 2024 – June 2024** 

Undergraduate Teaching Assistant

- Assisted in the instruction of COSC 74: Machine Learning and COSC 78: Deep Learning by providing oneon-one tutoring and bi-weekly office hours to review core conceptual concepts
- Graded assignments, projections and exams as well as developed supplemental course teaching material

### **PUBLICATIONS**

## Is Faithfulness in Prototypical Language Models a Mirage?

**A. Koulogeorge**, S. Xie, S. Hassanpour, S. Vosoughi: *Submitted to 2024 Conference on Empirical Methods in Natural Language Processing* 

### **Deciphering Stereotypes in Pre-Trained Language Models**

W. Ma, H. Scheible, B. Wang, G. Veeramachaneni, P. Chowdhary, A. Sun, A. Koulogeorge, L. Wang, Diyi Yang, S. Vosoughi: *Accepted to 2023 Conference on Empirical Methods in Natural Language Processing (paper)* 

## **SKILLS**

Languages: Python, Java, C

Frameworks & Libraries: PyTorch, Hugging Face, Scikit-learn, XGBoost, Pandas, Numpy, Apache Spark, Git

Amazon Web Services: S3, SageMaker, Bedrock

### **SELECT PROJECTS**

<u>Transformer from Scratch</u>: Implemented decoder only Transformer architecture from scratch in PyTorch; Trained mode to imitate Harry Potter text

<u>Stanford CS234: Reinforcement Learning</u>: Self-studied Stanford CS234; Implemented Value Iteration for finite state Markov Decision Process, Deep Q-Network for Atari, and Proximal Policy Optimization

<u>Traditional AI</u>: Implemented A\* Search and The Viterbi Algorithm for Blind Robot Planning, Minimax + Alpha-Beta Pruning for Chess AI, WalkSAT for Sudoko, Probabilistic Roadmap for Robotic Arm Planning