### Carlos E. Jimenez

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carlosejimenez.com

#### **Research Interests**

LLM Training and Evaluation, LMs for Code and Software Engineering, LM Agents, Task-Oriented Dialogue

### **Education**

## **Princeton University**

September 2020 - Present

PhD Computer Science

Advisor: Prof. Karthik Narasimhan

### University of Utah

January 2017 - May 2020

B. S. Computer Science (GPA: 3.95, Cum Laude)

Minor: Mathematics

Thesis Supervisor: Prof. Ellen Riloff

### De Anza College

September 2015 - December 2017

**Economics and Computer Information Science** 

#### Research

# SWE-bench: Can Language Models Resolve Real-World GitHub Issues?

Carlos E. Jimenez\*, John Yang\*, Alexander Wettig, Shunyu Yao, Kexin Pei, Ofir Press, Karthik Narasimhan *in review* (2023), \* Equal Contribution

# C-STS: Conditional Semantic Textual Similarity

Carlos E. Jimenez\*, Ameet Deshpande\*, Howard Chen, Vishvak Murahari, Victoria Graf, Tanmay Rajpurohit, Ashwin Kalyan, Danqi Chen, Karthik Narasimhan *EMNLP* (2023), \* Equal Contribution

# MUX-PLMs: Pre-training Language Models with Data Multiplexing

Vishvak Murahari, Ameet Deshpande, Carlos E. Jimenez, Izhak Shafran, Mingqiu Wang, Yuan Cao, Karthik Narasimhan

EMNLP Findings (2023)

# Reassessing the Role of Visual Supervision for Grounded Text Models

Carlos E. Jimenez, Alexander Wettig, Esha Mittal, Ziqing Huang, Austin W. Hanjie, Karthik Narasimhan *in review* (2022)

## DataMUX: Data Multiplexing for Neural Networks

Vishvak Murahari, Carlos E. Jimenez, Runzhe Yang, Karthik Narasimhan *NeurIPS* (2022)

### CARETS: A Consistency and Robustness Evaluative Test Suite for VQA

Carlos E. Jimenez, Olga Russakovsky, Karthik Narasimhan *ACL* (2022)

### Learning Physical Commonsense Knowledge

Carlos E. Jimenez

University of Utah Technical Report UUCS 20-005 (2020)

#### **Awards**

### Nokia Bell Labs Prize (2nd Prize)

2022

DataMUX: Data Multiplexing Neural Networks

# Qualcomm Innovation Fellowship North America (finalist)

2022

Data Multiplexing Neural Networks

### **Experience**

#### **Assistant Instructor**

January 2022 - May 2022

Department of Computer Science, Princeton University

COS 484, Natural Language Processing

Taught by Prof. Karthik Narasimhan

#### **Assistant Instructor**

January 2022 - May 2022

Department of Computer Science, Princeton University

COS 487, Theory of Computation

Taught by Prof. Gillat Kol

#### **Data Science Intern**

May 2020 - September 2020

Kytheran Labs

Salt Lake City, Utah

#### **Student Researcher**

August 2019 - December 2019

Department of Mathematics, University of Utah Applications of Machine Learning and Data Science in Finance Supervised by Prof. Jingyi Zhu

## **Teaching Assistant**

August 2019 - December 2019

School of Computing, University of Utah General assistant for CS 3100 Models of Computation Taught by Prof. Ganesh Gopalakrishnan

# **Undergraduate Researcher**

January 2019 - August 2019

School of Computing, University of Utah Methods and Analysis in Numerical Data Computing Advised by Prof. Ganesh Gopalakrishnan

## Languages and Software

PyTorch, Huggingface Transformers, Python, Fairseq, Numpy, JAX, FLAX, Tensorflow, Plotly, C/C++, SQL, Unix/Linux, Git, C#, Racket, HTML/CSS, LaTeX, Amazon Mechanical Turk, Google Cloud