

Carlos E. Jimenez  
carlosej@princeton.edu  
carlosejimenez.com

## Research Interests

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LMs for Code and Software Engineering, LM Agents, Dialogue Systems, Semantic Parsing, AI Safety

## Education

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### 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

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### [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**

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<b>Nokia Bell Labs Prize (2nd Prize)</b>	2022
DataMUX: Data Multiplexing Neural Networks	

<b>Qualcomm Innovation Fellowship North America (<i>finalist</i>)</b>	2022
Data Multiplexing Neural Networks	

## **Experience**

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<b>Assistant Instructor</b>	January 2022 - May 2022
Department of Computer Science, Princeton University COS 484, Natural Language Processing Taught by Prof. Karthik Narasimhan	

<b>Assistant Instructor</b>	January 2022 - May 2022
Department of Computer Science, Princeton University COS 487, Theory of Computation Taught by Prof. Gillat Kol	

<b>Data Science Intern</b>	May 2020 - September 2020
Kytheran Labs Salt Lake City, Utah	

<b>Student Researcher</b>	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**

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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