

Carlos E. Jimenez  
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## Research Interests

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Agentic AI, AI for Software Engineering, and Human-AI interaction

## 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

## Selected Research

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### [SWE-bench Multimodal: Do AI Systems Generalize to Visual Software Domains?](#)

Carlos E. Jimenez\*, John Yang\*, Alex L. Zhang, Kilian Lieret, Joyce Yang, Xindi Wu, Ori Press, Niklas Muennighoff, Gabriel Synnaeve, Karthik R. Narasimhan, Diyi Yang, Sida I. Wang, Ofir Press  
*ICLR (2025)*, \* Equal Contribution

### [SWE-agent: Agent Computer Interfaces Enable Software Engineering Language Models](#)

Carlos E. Jimenez\*, John Yang\*, Alexander Wettig, Kilian Lieret, Shunyu Yao, Ofir Press, Karthik Narasimhan  
*NeurIPS (2024)*, \* Equal Contribution

### [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  
*ICLR (2024)* oral presentation, \* 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

## [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)

## Awards

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**Nokia Bell Labs Prize (2nd Prize)** 2022

DataMUX: Data Multiplexing Neural Networks

**Qualcomm Innovation Fellowship North America (*finalist*)** 2022

Data Multiplexing Neural Networks

## Experience

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**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**

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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