Carlos E. Jimenez

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Research Interests

Autonomous AI Systems, AI for Software Engineering, and Human-AI Interaction / Collaboration

Education

Princeton University
September 2020 - May 2025

PhD Computer Science
Advised by Prof. Karthik Narasimhan

University of Utah
January 2017 - May 2020

B. S. Computer Science (GPA: 3.95, Cum Laude)
Minor: Mathematics
Thesis supervised by Prof. Ellen Riloff

De Anza College
September 2015 - December 2017

Economics and Computer Information Science

Selected Research

SWE-bench Multimodal: Do AI Systems Generalize to Visual Software Domains?
John Yang*, Carlos E. Jimenez*, 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
John Yang*, Carlos E. Jimenez*, 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 & Grants

a16z Open Source AI Grant Program Recipient 2025
SWE-bench, SWE-agent

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, Prof. Karthik Narasimhan
COS 487, Theory of Computation, Prof. Gillat Kol

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