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?

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 & Grants

a16z Open Source AI Grant Program Recipient

SWE-bench, SWE-agent

Nokia Bell Labs Prize (2nd Prize)

DataMUX: Data Multiplexing Neural Networks

Qualcomm Innovation Fellowship North America (finalist)

Data Multiplexing Neural Networks

Experience

Seminar Facilitator

Princeton AI Alignment (PAIA), Princeton University

Intro to AI Alignment Seminar

Assistant Instructor

Department of Computer Science, Princeton University

COS 487, Theory of Computation, Prof. Gillat Kol

COS 484, Natural Language Processing, Prof. Karthik Narasimhan

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Teaching Assistant

School of Computing, University of Utah General assistant for CS 3100 Models of Computation Taught by Prof. Ganesh Gopalakrishnan August 2019 - December 2019

2025

2022

2022

January 2022 - May 2022

January 2023 - May 2023