Rolando S. Garcia

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EDUCATION

University of California, Berkeley Ph.D. in Computer Science	Berkeley, CA Fall 2017 - Present
Arizona State University	Tempe, AZ
B.S. in Computer Science, Summa Cum Laude	Spring 2014 - Spring 2017
Awards and Fellowships	
NSF Graduate Research Fellowship	2017
UC Berkeley's Chancellor Fellowship	2017
UC Berkeley's EECS Excellence Award	2017
CRA Outstanding Undergraduate Researcher Award, honorable mention	2017
Fulton Undergraduate Research Initiative, research award	2016
IEEE VAST Grand Challenge Award, outstanding comprehensive submission	2015
Research	

RISE Lab rise.cs.berkeley.edu

June 2017 - Present

Graduate Researcher, advised by Joe Hellerstein

University of California, Berkeley

- FLOR, Fast Low-Overhead Recovery: Record-Replay of Model Training for Hindsight Logging.
- Context capture, inference, and management in the Machine Learning Lifecycle.

Amazon Search May 2018 – January 2019

Research Internship supervised by Chris Severs

Palo Alto, CA

- Context capture and management of enterprise-scale model training pipelines.
- Distributed scheduling of enterprise-scale model training pipelines.

VADER Lab vader.lab.asu.edu

January 2015 – May 2017

Undergraduate Researcher, advised by Ross Maciejewski

Arizona State University, Tempe

- NSF REU: Visual Analytics Algorithms for Spatiotemporal Analysis.
- Visual Analytics of Crowd Spatiotemporal Data (VAST Grand Challenge Award).
- Visual Analytics of Scientometrics.

Computational Genetics Lab epistasis.org

June 2016 – August 2016

Undergraduate Researcher, advised by Randy Olson and <u>Jason Moore</u>

University of Pennsylvania, Philadelphia

- DELFT: Deep Learning Feature of TPOT.
- Leadership Alliance participant.

Publications Operationalizing Machine Learning: An Interview Study CHI 2023 Shreya Shankar*, Rolando Garcia*, Joseph M. Hellerstein, Aditya G. Parameswaran. ACM CHI Conf' on Human Factors in Computing Systems, VV(E): XXX-XXX, 2023. *Co-first authors. **Honorable Mention:** MLOps Community Best Paper Award Hindsight Logging for Model Training PVLDB 2021 Rolando Garcia, Eric Liu, Vikram Sreekanti, Bobby Yan, Anusha Dandamudi, Joseph E. Gonzalez, Joseph M. Hellerstein, Koushik Sen. Proceedings of the VLDB Endowment, 14(4): 682-693, 2021. Context: The Missing Piece in the Machine Learning Lifecycle KDD CMI 2018 Rolando Garcia, Vikram Sreekanti, Neeraja Yadwadkar, Daniel Crankshaw, Joseph E. Gonzalez, Joseph M. Hellerstein. Workshop on Common Model Infrastructure at KDD, 2018. ACM TIIS 2018 A Visual Analytics Framework for Exploring Theme Park Dynamics Michael Steptoe, Robert Krüger, Rolando Garcia, Xing Liang, Ross Maciejewski. ACM Transactions on Interactive Intelligent Systems, 2018. CGF 2017 The State-of-the-Art in Predictive Visual Analytics Yafeng Lu, Rolando Garcia, Brett Hansen, Michael Gleicher, Ross Maciejewski. Computer Graphics Forum, 2017. VADER/VIS Grand Challenge Entry IEEE VAST 2015 Michael Steptoe, Robert Krüger, Yifan Zhang, Xing Liang, Rolando Garcia, Sagarika Kadambi, Wei Luo, Thomas Ertl, Ross Maciejewski. Proceedings of the IEEE VAST Challenge Workshop, 2015. Talks Operationalizing Machine Learning: An Interview Study Flyte, 2022 Rolando Garcia, Shreya Shankar. December 2022. Feedzai, 2022 Operationalizing Machine Learning: An Interview Study Shreya Shankar, Rolando Garcia. November 2022. Operationalizing Machine Learning: An Interview Study Viaduct, 2022 Shreya Shankar, Rolando Garcia. November 2022. Operationalizing Machine Learning: An Interview Study Salesforce, 2022 Rolando Garcia, Shreya Shankar. San Francisco Bay Area, November 2022. San Francisco Operationalizing Machine Learning: An Interview Study Cookpad, 2022 Shreya Shankar, Rolando Garcia. November 2022.

Operationalizing Machine Learning: An Interview Study Shreya Shankar, Rolando Garcia. Berkeley, CA, October 2022.

Shreya Shankar, Rolando Garcia. San Francisco Bay Area, October 2022.

Operationalizing Machine Learning: An Interview Study

Inaugural Address, 2022 EPIC, UC Berkeley

Weights & Biases, 2022

Operationalizing Machine Learning: An Interview Study

Canva, 2022

Rolando Garcia, Shreya Shankar. October 2022.

Operationalizing Machine Learning: An Interview Study Shreya Shankar, *Rolando Garcia*. San Francisco, CA, October 2022. Doordash, 2022 San Francisco

Operationalizing Machine Learning: An Interview Study

Rolando Garcia, Shreya Shankar. San Francisco Bay Area, October 2022.

MLOps World, 2022 San Francisco

Accelerate Your ML Experiments with Flor

Rolando Garcia. Hosted by Tobias Macey, April 2022.

Podcast.__init__, 2022 pythonpodcast.com

FLOR: Managing the Infinite Virtual Metadata of Model Training

Rolando Garcia. Cornell University, February 2022.

Cornell Seminar, 2022

Hindsight Logging for Model Training

Rolando Garcia, Eric Liu, Vikram Sreekanti, Anusha Dandamudi, Bobby Yan, Joseph Gonzalez, Koushik Sen, Joseph Hellerstein. August 2021.

VLDB 2021 Copenhagen

Choose What to Log, After you Execute

Rolando Garcia, Eric Liu, Vikram Sreekanti, Anusha Dandamudi, Bobby Yan, Joseph Gonzalez, Koushik Sen, Joseph Hellerstein. Retreat talk to lab sponsors. Monterey, CA. January 2019.

ML in Context: Preserve, Share, and Analyze Experiments with Flor

RISE Camp 2018

RISE Retreat 2019

Rolando Garcia, Vikram Sreekanti, Neeraja Yadwadkar, Daniel Crankshaw, Sona Jeswani, Eric Liu, Malhar Patel, Joseph Gonzalez, Joseph Hellerstein. Talk and Tutorial for lab sponsors. Berkeley, CA. October 2018.

Context: The Missing Piece in the Machine Learning Lifecycle

Rolando Garcia, Vikram Sreekanti, Neeraja Yadwadkar, Daniel Crankshaw, Joseph Gonzalez, Joseph Hellerstein. The 24th ACM SIGKDD Intl' Conf. August 2018.

KDD 2018 London

Data Management Challenges in the Machine Learning Lifecycle

Rolando Garcia, Vikram Sreekanti, Daniel Crankshaw, Neeraja Yadwadkar, Sona Jeswani, Eric Liu, Malhar Patel, Joseph Gonzalez, Joseph Hellerstein. Invited talk at Amazon Search. Palo Alto, CA. April 2018.

Amazon 2018 Palo Alto

Design, Run, and Reproduce Experiments with Jarvis

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Rolando Garcia, Vikram Sreekanti, Daniel Crankshaw, Neeraja Yadwadkar, Alexey Tumanov, Joseph Gonzalez, Joseph Hellerstein.

Retreat talk to lab sponsors. Monterey, CA. January 2018.

Jarvis: Managing the Machine Learning Lifecycle

Rolando Garcia, Vikram Sreekanti, Daniel Crankshaw, Neeraja Yadwadkar,

Alexey Tumanov, Joseph Gonzalez, Joseph Hellerstein.

Invited talk at Google. Mountain View, CA. September 2017.

RISE Retreat 2018

Google 2017 Mountain View

Talks (Cont'd)

The State-of-the-Art in Predictive Visual Analytics

Euro Vis 2017

Yafeng Lu, Rolando Garcia, Brett Hansen, Michael Gleicher, Ross Maciejewski.

Barcelona

 19^{th} EG/VGTC Conference on Visualization, Barcelona, Spain. June 2017.

Automatic Design and Optimization of Deep Learning Models

LANS 2016

Rolando Garcia, Randal Olson, Jason Moore.

The Leadership Alliance National Symposium, Stamford, CT. July 2016.

VAST 2015 Grand Challenge – Team VADER/VIS

VAST 2015

Michael Steptoe, Robert Krüger, Yifan Zhang, Xing Liang, Rolando Garcia,

Chicago

Sagarika Kadambi, Wei Luo, Thomas Ertl, Ross Maciejewski.

IEEE Visual Analytics Science and Technology Conference, Chicago, IL. October 2015.

TEACHING

Introduction to Database Systems (COMPSCI 186/286)

Spring 2018

Graduate Student Instructor, 450 students

University of California, Berkeley

Introduction to Programming Languages (CSE 240)

Fall 2015

Undergraduate Student Instructor, 267 students

Arizona State University, Tempe

Introduction to Ethics (PHI 105)

Fall 2013

Undergraduate Student Instructor, 50 students

Northern Arizona University, Flagstaff

SERVICE

Diversifying Access to Research in Engineering (DARE)

June 2020 - Present

Organizer | dare.berkeley.edu

University of California, Berkeley

DARE is a recruitment program and hiring infrastructure that seeks to increase diversity and equitable opportunity in undergraduate computer science research. DARE was founded by the RISE lab, and now enlists more than 30 faculty members and their labs from across the EECS department.

- Promoted outreach to students with financial needs, transfer students, and students with demonstrated service toward increasing diversity and inclusion.
- I noticed that some undergraduate researchers struggled with inadequate and unreliable computers, and this interfered with their ability to do research. I sought and received university funding for DARE to acquire laptops it can furnish to undergraduate researchers with financial need. We can now give laptops to students who need them for undergraduate research.

EECS Graduate Admissions

Fall 2021

Graduate Student Representative | dsf.berkeley.edu

University of California, Berkeley

Data Systems and Foundations Seminar

Fall 2020

Coordinator | dsf.berkeley.edu

University of California, Berkeley

Graduate Pathways to STEM

June 2017 – December 2019

Peer Advising Co-Chair and Peer Advisor | GPS Hyperlink

UC Berkeley & Stanford