Rolando S. Garcia

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EDUCATION

University of California, Berkeley   Berkeley, CA
Ph.D. in Computer Science, advised by Dr. Joseph M. Hellerstein   *Fall 2017 - Spring 2024*

Arizona State University   Tempe, AZ
B.S. in Computer Science, *Summa Cum Laude*   *Spring 2014 - Spring 2017*

Northern Arizona University   Flagstaff, AZ
91 credits (3.97 GPA) toward B.A. in Philosophy   *Fall 2010 – Fall 2013*

AWARDS AND FELLOWSHIPS

Dell Technologies Inc. Research Award, one year of funding	2023
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

EPIC Data Lab `epic.berkeley.edu`   June 2021 – Present
Graduate Researcher, advised by <u>Joe Hellerstein</u>   *University of California, Berkeley*

- <u>FlorDB</u>: Multiversion Hinsight Logging for Continuous Training
- Operationalizing ML: An interview study, w Shreya Shankar et al.
- NSF Future of Work: Upskilling lawyers and journalists to process court cases at scale.

RISE Lab `rise.cs.berkeley.edu`   June 2017 – 2021
Graduate Researcher, advised by <u>Joe Hellerstein</u>   *University of California, Berkeley*

- <u>FLOR</u>, 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 <u>Ross Maciejewski</u>   *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 <u>Randy Olson</u> and <u>Jason Moore</u>   *University of Pennsylvania, Philadelphia*

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

PUBLICATIONS

Multiversion Hindsight Logging for Continuous Training   *ArXiv* 2023
Rolando Garcia, Anusha Dandamudi, Gabriel Matute, Lehan Wan,
Joseph E. Gonzalez, Joseph M. Hellerstein, Koushik Sen.
pre-print on ArXiv, 2023.

Operationalizing Machine Learning: An Interview Study   *CSCW* 2024
Shreya Shankar[*], *Rolando Garcia*[*], Joseph M. Hellerstein, Aditya G. Parameswaran.
ACM *CSCW Conf' on Computer Supported Cooperative Work and Social Computing*
(under revision) 2024.
[*]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.

A Visual Analytics Framework for Exploring Theme Park Dynamics   *ACM TIIS* 2018
Michael Steptoe, Robert Krüger, *Rolando Garcia*, Xing Liang, Ross Maciejewski.
ACM Transactions on Interactive Intelligent Systems, 2018.

The State-of-the-Art in Predictive Visual Analytics   *CGF* 2017
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.

Operationalizing Machine Learning: An Interview Study   *Feedzai, 2022*
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   *Weights & Biases, 2022*
Shreya Shankar, *Rolando Garcia*. San Francisco Bay Area, October 2022.

Operationalizing Machine Learning: An Interview Study   *Inaugural Address, 2022*
Shreya Shankar, *Rolando Garcia*. Berkeley, CA, October 2022.   EPIC, UC Berkeley

Operationalizing Machine Learning: An Interview Study   *Canva, 2022*
Rolando Garcia, Shreya Shankar. October 2022.

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

Operationalizing Machine Learning: An Interview Study   *MLOps World, 2022*
Rolando Garcia, Shreya Shankar. San Francisco Bay Area, October 2022.   San Francisco

Accelerate Your ML Experiments with Flor   *Podcast.__init__, 2022*
Rolando Garcia. Hosted by Tobias Macey, April 2022.   `pythonpodcast.com`

FLOR: Managing the Infinite Virtual Metadata of Model Training   *Cornell Seminar, 2022*
Rolando Garcia. Cornell University, February 2022.

Hindsight Logging for Model Training   *VLDB* 2021
Rolando Garcia, Eric Liu, Vikram Sreekanti, Anusha Dandamudi, Bobby Yan,   Copenhagen
Joseph Gonzalez, Koushik Sen, Joseph Hellerstein. August 2021.

Choose What to Log, After you Execute   *RISE Retreat* 2019
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
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   *KDD* 2018
Rolando Garcia, Vikram Sreekanti, Neeraja Yadwadkar, Daniel Crankshaw,   London
Joseph Gonzalez, Joseph Hellerstein. *The 24th ACM SIGKDD Intl' Conf.* August 2018.

Data Management Challenges in the Machine Learning Lifecycle   *Amazon* 2018
Rolando Garcia, Vikram Sreekanti, Daniel Crankshaw, Neeraja Yadwadkar,   Palo Alto
Sona Jeswani, Eric Liu, Malhar Patel, Joseph Gonzalez, Joseph Hellerstein.
Invited talk at Amazon Search. Palo Alto, CA. April 2018.

Design, Run, and Reproduce Experiments with Jarvis *RISE Retreat* 2018
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 *Google* 2017
Rolando Garcia, Vikram Sreekanti, Daniel Crankshaw, Neeraja Yadwadkar, Mountain View
Alexey Tumanov, Joseph Gonzalez, Joseph Hellerstein.
Invited talk at Google. Mountain View, CA. September 2017.

The State-of-the-Art in Predictive Visual Analytics *EuroVis* 2017
Yafeng Lu, *Rolando Garcia*, Brett Hansen, Michael Gleicher, Ross Maciejewski. Barcelona
19th *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 – December 2022
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.

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*