# 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 - Summer 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

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|---|---|
| SCAI@ASU Presidential Postdoctoral Fellowship | 2024 |
| 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 – June 2024
Graduate Researcher, advised by Joe Hellerstein                          *University of California, Berkeley*
- 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 – June 2021
Graduate Researcher, advised by Joe Hellerstein                          *University of California, Berkeley*
- FlorDB: Multiversion Hingsight Logging for Continuous Training
- Context capture, inference, and management in the Machine Learning Lifecycle.

**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).

**Computational Genetics Lab** `epistasis.org`                          June 2016 – August 2016
Undergraduate Researcher, advised by Randy Olson and Jason Moore         *University of Pennsylvania, Philadelphia*
- DELFT: Deep Learning Feature of TPOT.
- Leadership Alliance participant.

## PUBLICATIONS

**Flow with FlorDB: Incremental Context Maintenance** *submitted CIDR* 2025
**for the Machine Learning Lifecycle**
*Rolando Garcia*, Pragya Kallanagoudar, Chithra Anand, Sarah E. Chasins,
Joseph M. Hellerstein, Aditya G. Parameswaran. *submitted CIDR*, 2025.

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

**"We Have No Idea How Models will Behave in Production until Production":** *CSCW* 2024
**How Engineers Operationalize Machine Learning**
Shreya Shankar[*], *Rolando Garcia*[*], Joseph M. Hellerstein, Aditya G. Parameswaran.
ACM *CSCW Conf' on Computer Supported Cooperative Work and Social Computing* 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** *Salesforce, 2022*
Shreya Shankar, *Rolando Garcia*. San Francisco Bay Area, November 2022. San Francisco

**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 24<sup>th</sup> 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
$19^{th}$ *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 – 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*