# Doris Jung-Lin Lee

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# **EDUCATION**

Ph.D. Information Management and Systems, University of California, Berkeley

• Ph.D. Computer Science, University of Illinois, Urbana-Champaign (transferred)

B.A. Physics, Astrophysics, University of California, Berkeley

2019 - Present
2016 - 2019
2013 - 2016

#### RESEARCH EXPERIENCE

Aug 2019 - Present Graduate Student Research Assistant at UC Berkeley Research Intern at IBM Research Almaden Summer 2019 Research Intern at Tableau Software Summer 2018 Graduate Student Research Assistant at UIUC Aug 2016 - May 2019 Lawrence Berkeley National Lab Scientific Data Management Group Summer 2016 UC Berkeley AMP Lab Big Data Genomics Group January 2016 - Aug 2016 June 2014 - Aug 2016 UC Berkeley Hybrid Ecologies Lab Princeton Astrophysical Fluid Dynamics Group Summer 2015 November 2014 - Aug 2016 UC Berkeley Star Formation Theory Group University of Illinois Laboratory for Cosmological Data Mining May 2014 - Jan 2016

#### **PUBLICATIONS**

# Full Papers

[P13] Doris Jung-Lin Lee, Dixin Tang, Kunal Agarwal, Thyne Boonmark, Caitlyn Chen, Jake Kang, Ujjaini Mukhopadhyay, Jerry Song, Micah Yong, Marti A. Hearst, Aditya G. Parameswaran, Lux: Always-on Visualization Recommendations for Exploratory Data Science, *Under Submission* 

[P12] Doris Jung-Lin Lee, Vidya Setlur, Melanie Tory, Karrie Karahalios, Aditya Parameswaran, Deconstructing Categorization in Visualization Recommendation: A Taxonomy and Comparative Study, *Under Submission* 

[P11] Stephen Macke, Hongpu Gong, Doris Jung-Lin Lee, Andrew Head, Doris Xin, Aditya Parameswaran Fine-Grained Lineage for Safer Notebook Interactions, 47th International Conference on Very Large Data Bases (VLDB), Aug 2021

[P10] Doris Xin, Eva Yiwei Wu, Doris Jung-Lin Lee, Niloufar Salehi, Aditya Parameswaran. Whither AutoML? Understanding the Role of Automation in Machine Learning Workflows, *ACM Transactions on Computer-Human Interaction (CHI)*, May 2021

[P9] Devin Petersohn, Stephen Macke, Doris Xin, William Ma, Doris Lee, Xiangxi Mo, Joseph E. Gonzalez, Joseph M. Hellerstein, Anthony D. Joseph, Aditya Parameswaran. Towards Scalable Dataframe Systems, 46th International Conference on Very Large Data Bases (VLDB), Sept 2020

[P8] Angela Lee\*, Doris Xin\*, Doris Jung-Lin Lee\*, Aditya Parameswaran. Demystifying a Dark Art: Understanding Real-World Machine Learning Model Development, Workshop on Human-In-the-Loop Data Analytics (HILDA) at SIGMOD, June 2020.

[P7] Doris Jung-Lin Lee, John Lee, Tarique Siddiqui, Jaewoo Kim, Karrie Karahalios, Aditya Parameswaran. You can't always sketch what you want: Understanding Sensemaking in Visual Query Systems, *IEEE Conference on Visual Analytics Science and Technology (VAST)*, October 2019.

[P6] Doris Jung-Lin Lee\*, Stephen Macke\*, Doris Xin\*, Angela Lee, Silu Huang, Aditya Parameswaran. A Human-in-the-loop Perspective on AutoML: Milestones and the Road Ahead. *IEEE Data Engineering Bulletin*, Special Issue on Machine Learning Life-cycle Management, June 2019.

- [P5] Doris Jung-Lin Lee, Himel Dev, Huizi Hu, Hazem Elmeleegy, Aditya Parameswaran. Avoiding the Drill-down Fallacy with VisPilot: Assisted Exploration of Data Subsets. *ACM Intelligent User Interface (IUI)*, Los Angelos, California, March 2019.
- [P4] Doris Jung-Lin Lee, Aditya Parameswaran, The Case for a Visual Discovery Assistant: A Holistic Solution for Accelerating Visual Data Exploration. *IEEE Data Engineering Bulletin*, Special Issue on Insights and Explanations in Data Analysis, September 2018.
- [P3] Doris Jung-Lin Lee, Joanne Lo, Moonhyok Kim, Eric Paulos, Crowdclass: Designing Classification-based Citizen Science Learning Modules. *The Fourth AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Austin, Texas, November 2016.
- [P2] Joanne Lo, **Doris Jung-Lin Lee**, Nathan Wong, David Bui, Eric Paulos, Skintillates: Towards Epidermal Interactions. *ACM Designing Interactive Systems (DIS)*, Brisbane, Australia, June 2016. **Honorable Mention.**
- [P1] Laura Devendorf, Joanne Lo, Noura Howell, **Doris Jung-Lin Lee**, Nan-Wei Gong, M. Emre Karagozler, Ivan Poupyrev, Eric Paulos, Kimiko Ryokai, 'I don't Want to Wear a Screen': Probing Perceptions of and Possibilities for Dynamic Displays on Clothing. *ACM Transactions on Computer-Human Interaction (CHI)*, San Jose, USA, May 2016. **Best Paper Award.**

#### Short Papers/Poster/Demo

- [W7] Doris Jung-Lin Lee, Abdul Quamar, Eser Kandogan, Fatma Ozcan, Boomerang: Proactive Insight-Based Recommendations for Guiding Conversational Data Analysis. *ACM SIGMOD International Conference on Management of Data*, June 2021.
- [W7] Doris Jung-Lin Lee, Towards an Integrated Solution for Intelligent Visual Data Discovery. Extended Abstracts of the Conference on Human Factors in Computing Systems (CHI), April 2020.
- [W6] Doris Jung-Lin Lee, Jaewoo Kim, Renxuan Wang, Aditya Parameswaran, ScatterSearch: Visual Querying of Scatterplot Visualizations. *IEEE Conference on Information Visualization (InfoVis)*, Vancouver, Canada, October 2019.
- [W5] Doris Jung-Lin Lee, Akash Das Sarma, Aditya Parameswaran, Aggregating Crowdsourced Image Segmentations. The Sixth AAAI Conference on Human Computation and Crowdsourcing (HCOMP), Zurich, Switzerland, July 2018.
- [W4] Edward W Huang, Sheng Wang, **Doris Jung-Lin Lee**, Runshun Zhang, Baoyan Liu, Xuezhong Zhou, ChengXiang Zhai. Framing Electronic Medical Records as Polylingual Documents in Query Expansion, *AMIA Annual Symposium Proceedings*. American Medical Informatics Association, 2017.
- [W3] Doris Jung-Lin Lee, Jinda Han, Dana Chambourova, Ranjitha Kumar. Identifying Fashion Accounts in Social Networks. *In Proceedings of ACM KDD 2017 Machine learning meets fashion Workshop*, Halifax, Nova Scotia, August 2017.
- [W2] Ling Jin, Doris Jung-Lin Lee, Alex Sim, Sam Borgeson, John Wu, Anna Spurlock, Annika Todd, Comparison of Clustering Techniques for Residential Energy Behavior using Smart Meter Data, 2nd International Workshop on Artificial Intelligence for Smart Grids and Smart Buildings In conjunction with AAAI 2017.
- [W1] Doris Jung-Lin Lee, Robert J. Brunner, Pattern Discovery and Large-Scale Data Mining on Cosmological Datasets. 6th Workshop on Algorithms for Modern Massive Data Set (MMDS), Berkeley, USA, June 2016.

## **Technical Reports**

[T2] Doris Jung-Lin Lee, Aaron T. Lee, astroSim: Jupyter Notebook tutorials for running astrophysical simulations through the gravitational collapse of a magnetized, rotating sphere. [zenodo:59657]

[T1] Doris Jung-Lin Lee, Robert J. Brunner, Creating updated, scientifically-calibrated mosaic images for the RC3 Catalogue (2015) [arXiv:1512.01204].

#### **PATENTS**

- Skintillates: Towards Epidermal Electronics Interactions. Eric Paulos, Joanne Lo, Jung-Lin Lee, U.S. Provisional Patent Application No.62/174,735, June 2015.
- Individually Addressable, Highly Efficient, Trifunctional Conductive Thread. Eric Paulos, Kimiko Ryokai, Joanne Lo, Laura Devendorf, Jung-Lin Lee, Nan-Wei Gong, Karen Robinson, Ivan Poupyrev, June 2015.

#### **AWARDS**

- 2020 Facebook PhD Fellowship (Selected worldwide from over 1800 applications)
- ACM CHI 2020 Doctoral Symposium Selected Participant (24% acceptance rate)

| • ACM IUI 2019 Travel Award  | Feb 2019  |
|--|-----------|
| • CRA-W Grad Cohort Workshop Selected Participant and Travel Award | Dec 2018  |
| • UIUC Computer Science Excellence Fellowship                      | Oct 2016  |
| • ACM DIS 2016 Honorable Mention Award                             | June 2016 |
| • ACM CHI 2016 Best Paper Award                                    | May 2016  |

# STUDENTS MENTORED

| <ul> <li>Micah Yong (BS CS '22)</li> <li>Ujjaini Mukhopadhyay (BS CS '22)</li> </ul> | 2021-Present<br>2020-Present |
|--|------------------------------|
| • Jake Kang (BS Business '21)  | 2020-Present                 |
| • Kunal Agarwal (BS CS '21)  | 2020-Present                 |
| • Caitlyn Chen (BS CS '21)   | 2020-Present                 |
| • Thyne Boonmark (MIMS '21)  | 2019-Present                 |
| • Jerry Song (BS EECS '20; Now Graduate Student at UC Berkeley)                      | 2020-Present                 |
| • Jared Zhao (BS CS '21; Now Cofounder of Polyture)                                  | 2020                         |
| • Eva Wu (MIMS '20; Now PhD student at University of Zurich)                         | 2019-2020                    |
| • Angela Lee (BS CS '19; MS CS '20; Now Software Engineer at Google)                 | 2019-2020                    |
| • Jaewoo Kim (BS CS '18; MS CS '20; Now Software Engineer at Amazon)                 | 2017-2020                    |
| • Huizi Hu (BS CS '19; Now Graduate Student at UIUC)                                 | 2017-2019                    |
| • Renxuan Wang (MS CS'19; Now Software Engineer at Google)                           | 2018-2019                    |
| • Jintao Jiang (BS CS '18; Now Graduate Student at UCLA)                             | 2018-2019                    |
| • Edward Xue (MS CS '18; Now Software Engineer at Facebook)                          | 2017-2018                    |
| • Xu Yang (MS IE '18; Now Software Engineer at Apple)                                | 2018                         |
| • Chaoran Wang (MS CS '17; Now Software Engineer at Uber)                            | 2017                         |
| • Zhiwei Zhang (BS CS '17; Now Software Engineer at DRW)                             | 2017                         |
| • Dana Chambourova (BS CS'17; Now software engineer at Flexport)                     | 2017                         |

#### PROFESSIONAL SERVICE

ACM IUI Paper Program Committee

2018-2020

Paper Reviewer:

IUI 2017, TIIS 2018, CHI 2018, CHI 2019 (Case Studies), PacificVAST 2019,

EuroVis 2019-2020, CHIPLAY 2019 (Work-in-Progress), TVCG 2019,

IUI 2019 (Poster), TKDE 2020, VIS 2020, CSCW 2020, FACCT 2021

ACM SIGCHI Executive Committee Student Volunteer

2017

ACM XRDS Magazine News Editor

Nov 2014 - August 2016

# Mentoring & Volunteering:

- UC Berkeley EECS Department PhD Admission Student Reviewing Committee (2021)
- UC Berkeley EECS Department PhD Admit Ambassador (2020-2021)
- UIUC CS Department Graduate Student Mentor (2018)
- UIUC CS Department PhD Admit Ambassador (2018, 2019)
- UIUC Mentoring Undergraduates in Science & Engineering (2017)
- Peer Mentor and Club Liaison for UC Berkeley Society of Physics Students (2015-2016)
- Volunteer and Summer Program Coordinator at UC Berkeley COMPASS Project (2013-2016)