

Alyssa Morrow

PHD CANDIDATE

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Education

University of California, Berkeley

[Berkeley, CA](#)

COMPUTER SCIENCE AND ELECTRICAL ENGINEERING

Present

- **Doctor of Philosophy** — *May 2017 to present*
Advisors: Anthony D. Joseph and Nir Yosef
- **Masters of Science** — *Aug 2015 to May 2017*
Advisors: David Patterson, Anthony D. Joseph, and Nir Yosef

University of Wisconsin, Madison

[Madison, WI](#)

BACHELOR OF SCIENCE IN COMPUTER SCIENCE, GPA: 3.94/4.0

December 2014

Honors and Awards

NSF Graduate Research Fellowship

[Berkeley, CA](#)

NATIONAL SCIENCE FOUNDATION

May 2017 - May 2020

Eugene L. Lawler Prize

[Berkeley, CA](#)

UC BERKELEY EECS STUDENT AWARDS COMMITTEE

May 2017

Academic All Star Scholarship

[Madison, WI](#)

UNIVERSITY OF WISCONSIN, MADISON

Aug. 2010 - May 2014

Research

UC Berkeley

[Berkeley, CA](#)

AMP AND RISE LAB

Aug. 2015 - PRESENT

- Distributed visualization for large genomic datasets
- Scalable kernel methods for sequence based prediction of transcription factor binding sites

UC Berkeley

[Berkeley, CA](#)

YOSEF LAB

Aug. 2016 - PRESENT

- Epigenetic landscape of reprogrammed T cells
- Inferring protein binding from chromatin accessibility

UW Madison

[Madison, WI](#)

ANÉ LAB

Aug. 2010 - May 2011

- Correlation between enzyme concentration and gene expression in the *Medicago Truncatula* species

Publications

- [1] A. Morrow et al. "Mango: Exploratory Data Analysis for Large-Scale Sequencing Datasets". In: *Cell Systems* 9.6 (2020/05/20 2019), 609–613.e3. DOI: 10.1016/j.cels.2019.11.002. URL: <https://doi.org/10.1016/j.cels.2019.11.002>.
- [2] A. Morrow et al. "Convolutional Kitchen Sinks for Transcription Factor Binding Site Prediction". In: (May 2017).
- [3] A. Morrow. "Exploratory data analysis of genomic datasets using ADAM and Mango with Apache Spark on Amazon EMR". In: (2018). URL: <https://aws.amazon.com/blogs/big-data/exploratory-data-analysis-of-genomic-datasets-using-adam-and-mango-with-apache-spark-on-amazon-emr/>.
- [4] A. Morrow, A.D. Joseph, and N. Yosef. "Distributed visualization for genomic analysis". In: (2017). URL: <https://www2.eecs.berkeley.edu/Pubs/TechRpts/2017/EECS-2017-82.pdf>.

Presentations

Generalization of transcription factor binding patterns to novel cells using chromatin accessibility

YOSEF LAB/RISE LAB

- **Oral Presentation (Runner-up: best lightning talk)** ENCODE 2019 Consortium Meeting — *Monterey, CA*
- **Oral Presentation** 2019 CCB Retreat — *Berkeley, CA*

Epigenetic Landscape of Reprogrammed T cells

YOSEF LAB

- **Poster Presentation** RSG-DREAM 2018 — *New York, NY*
- **Poster Presentation** RSG-DREAM 2017 — *New York, NY*

Distributed Visualization for Genomic Analysis

RISE LAB/YOSEF LAB

- **Lightning Presentation** Genome Informatics 2019 — *CSHL, NY*
- **Tutorial/Talk** ISCB-LA SoBio EMBnet 2018 — *Vina del Mar, Chile*
- **Oral Presentation** Bioinformatics Open Source Conference (BOSC '16) — *Orlando, FL*
- **Oral Presentation** Data by the Bay 2016 — *San Francisco, CA*
- **Oral Presentation** EMBO Conference on Visualizing Biological Data (VIZBI 2016) — *Heidelberg, Germany*

Teaching

Immunotherapy of Cancer: Successes and Failures

Berkeley, CA

HEAD TEACHING ASSISTANT: MOLECULAR AND CELL BIOLOGY 88

Spring 2017-Spring 2018

- Created new data science connector course with MCB and CS departments
- Developed curriculum regarding coding practices and statistical analysis of data related to cancer immunotherapy

Service

Search Committee: Associate Provost for Data Science Division

Berkeley, CA

STUDENT REPRESENTATIVE

Jan. 2018 - June 2018

- Search committee member for Associate Provost for the Division of Data Science and Information and Dean of the School of Information at University of California, Berkeley

WICSE 40th Reunion Committee Member

Berkeley, CA

SECRETARY

Jan. 2018 - May 2018

- Aided in organization of UC Berkeley Women in Computer Science and Engineering (WICSE) 40th reunion

WICSE: Women in Computer Science and Engineering

Berkeley, CA

SECRETARY

Aug. 2016 - Aug. 2018

- Helped organize and document WICSE events
- Mentored incoming female graduate students
- Updated and maintained WICSE website

CSGSA: Computer Science Graduate Student Association

Berkeley, CA

OUTDOOR COORDINATOR

Aug. 2016 - Aug. 2018

- Organized outdoor social events for graduate students

Students Mentored

Berkeley, CA

UNIVERSITY OF CALIFORNIA, BERKELEY

- Rohan Khoodli, UC Berkeley, Undergraduate
- Jahnvi Singh, UC Berkeley, Undergraduate
- Abhinav Adduri, UC Berkeley, Undergraduate
- Weston Hughes, UC Berkeley, Undergraduate
- Alex Ku, UC Berkeley, Masters
- Gunjan Baid, UC Berkeley, Masters
- George He, UC Berkeley, Undergraduate
- Jung Lin Doris Lee, UC Berkeley, Undergraduate

Industry

Microsoft Research

RESEARCH INTERN

- Investigated correlation between DNA methylation and allele specific gene expression in the Cancer Genome Atlas (TCGA)

Seattle, WA

May 2017 - Aug. 2017

Qualcomm

SOFTWARE ENGINEER INTERN

- Developed and tested Wide Band Code Division Multiple Access networking protocols

San Diego, CA

May 2015 - Aug. 2016

Smart UQ

SOFTWARE ENGINEER

- Developed middle and front end stack for simulation and analytics software
- Recruited and interviewed level 1 engineers

Madison, WI

Sept. 2014 - Aug. 2015

Twin Lakes Programming

CO-MANAGER AND DEVELOPER

- Co-designed and developed software intended to externally evaluate employer progress while exposing gender and race biases in the workplace

Madison, WI

Feb. 2014 - Jan. 2015

Kohl's IT

PROGRAM ANALYST INTERN

- Updated and tested internal merchandise database
- Designed and developed a pipeline to recommend clothing using state of the art image recognition technology

Milwaukee, WI

May 2014 - Aug. 2014

Software Training for Students

PROGRAM MANAGER

- Taught custom seminars for large groups of students on subjects such as MATLAB, Javascript and Adobe design products
- Managed 25 peer teachers

Madison, WI

Aug. 2012 - Sept. 2014

Middleton Dress Company

SEAMSTRESS AND WEB DESIGNER

- Designed and managed company website
- Helped design and construct custom dresses for customers

Middleton, WI

Aug. 2013 - Aug. 2014