

# David Merrell

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dpmerrell.github.io

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## Education

### PhD Computer Science (IN PROGRESS)

Jan 2019 - Present

University of Wisconsin – Madison

**Research.** Inferring signaling pathways with probabilistic models. Advised by Tony Gitter.

**Coursework.** Statistical inference. Genetics.

### MS Computer Science

Dec 2018

University of Wisconsin – Madison

**Research.** Exact probabilistic inference. Advised by Aws

Albarghouthi and Loris D'Antoni. See our IJCAI 2017 publication.

**Coursework.** Optimization. AI. Machine Learning. Program Analysis & Verification.  
Bioinformatics. Algorithms.

### BS Mathematics, cum laude

Apr 2014

Brigham Young University—Minor in Physics—GPA 3.9

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## Employment

### DataChat, Inc.

Summer 2019

Building ML infrastructure at a business intelligence startup.

### RAND Corporation

Sep 2014 - Mar 2016

Operations research, simulations, and data analysis for DoD projects.

### Sandia National Laboratories

Summer 2013; Summer 2014

ALEGRA shock and multiphysics simulation code.

### Pacific Northwest National Laboratory

Summer 2012

Simulations and data analysis for the NIFFTE nuclear fission experiment.

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## Skills

### Technical

- **Programming Languages.** Python (strong), Julia (familiar), MATLAB (familiar), C++ (familiar), Java (familiar), R (exposed), SQL (exposed), Mathematica (exposed).
- **Packages and Libraries.** numpy, scipy, pandas, matplotlib, sklearn, tensorflow, keras, tensorflow-probability, edward2, pymc3.
- **Miscellaneous.** git, GNU/Linux, L<sup>A</sup>T<sub>E</sub>X, Snakemake, Singularity containers, bash, Jupyter, SolidWorks.

### Soft

Writing, public speaking, event planning, polite disagreement, teaching.

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## Service & Leadership

### President — UW-Madison Student ACM chapter (SACM)

Aug 2018 - Aug 2019

Restructured the organization to improve division of labor. Recruited 25 student officers with clearly defined responsibilities. Increased budget by 50% through fundraising. Planned and executed numerous social and professional activities.

### Eagle Scout

Aug 2007 - Present