

BEN WOODRUFF



EDUCATION

2005

Brigham Young University

Ph.D. in Mathematics (GPA: 4.0)

Provo, Utah

Dissertation: [Statistical Properties of Thompson's Group and Random Pseudo Manifolds](#)

2001

Utah State University

B.S. in Mathematics (GPA: 4.0)

Salt Lake City, Utah



WORK EXPERIENCE

2005
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Current

Mathematics Department Faculty

Brigham Young University - Idaho

Rexburg, ID

- Teach 3 semesters a year, from early September through late July
- Conduct professional development activities, creating [educational materials](#)
- (2012+) Internship coordinator for mathematical sciences majors
- (2005+) Local Organizer for Putnam Exam
- (2021+) Master Learning Practitioner Coordinator and Thinkshop Lead
- (2010-11) Outcomes and Assessment University Committee member
- **L^AT_EX** (2002 - present): Use **L^AT_EX** on a daily basis, including tikz
- SPSS/PSPP/Excel (2006+): Common tools used in statistics program
- PHP (2008+): Maintain various wikis. Wrote PMWiki's [jsMath](#) cookbook.
- MySQL, MediaWiki, Webmaster (2013+): Creator and webmaster for department webspace (web hosting and dedicated servers)
- JavaScript/HTML5/CSS (2014+): Created an interactive [normal probability applet](#)
- JQuery/CSS (2014): Enabled instructor customization of course text
- R, Curl, XML (2015): Automated course package creation, saving faculty thousands of hours
- SageMath/PHP: Wrote PHP code that enables SageMath calls in **L^AT_EX**-enabled wikis.
- R, Tidyverse, ggplot, dplyr (2019+): Instruct students in a Data Wrangling and Visualization course
- RShiny (2021+): Wrote RShiny applets to give students feedback in Applied Calculus for Data Analysis, and then created a Wordle word finder (and other apps).
- bookdown (2022): Collaborated to create an inquiry based-learning [task list](#) for our Data Wrangling and Visualization course.
- Python: Guided a student senior project in Python that used MonteCarlo methods for analyzing different strategies of the card game "Dominion".

CONTACT INFO

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🐙 github.com/bmwoodruff

in [linkedin.com/in/ben-woodruff-4523485/](https://www.linkedin.com/in/ben-woodruff-4523485/)

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SKILLS

Highly skilled in LaTeX (20+ years), Mathematica (10+ years), R (7+ years) and Linux (Debian based) (15+ years). Capable and familiar with many other languages including HTML/CSS, JavaScript/JQuery, PHP, SQL, Java, Maple/SageMath/Matlab, C++, Python, SPSS/PSPP.

Data visualization expertise using [ggplot2](#).

Data science and statistics teaching and course development.

Cocreator of large (100+ pages) open source education materials for mathematics, statistics, and data science.

2012
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Current

● **Mathematical Association of America Service**

Intermountain Section of the MAA

- Work with section officers to facilitate MAA activities.
- Contributed Talks organizer (2012 - 2014)
- First Vice Chair (2015 - 2016)
- Webmaster and technical support (2016 - 2022)
- Conference Organizer for yearly meetings (2021)

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