

DANIEL MILLER

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Summary

Data scientist working with Microsoft's Analysis and Experimentation team, to enable the rest of Microsoft accelerate innovation through trustworthy experimentation. Worked with Bing to do analyze petabyte-scale data sets, optimize data pipelines, and maintain statistical rigor at scale (thousands of experiments). Have experience developing scalable data analysis algorithms in a team environment, visualizing complex real-world data, and communicate the business impact of ideas to a diverse audience. Interested in leveraging mathematical skills in building platforms that democratize insights, in a fast-paced, collaborative, environment.

Experience

DATA SCIENTIST, MICROSOFT

June 2017–present

- MUID-Query sensitivity analysis?
- SLAPI cleanup? Worked with Bing.
- Information gains? Analyzed correlation between results of short and long experiments, leading to greater agility and cost savings.
- Maps Overlay?

PH.D. RESEARCH, CORNELL UNIVERSITY

August 2013–May 2017

- Proved precise connections between apparently unconnected topics (discrepancy and Dirichlet series).

ARIZONA WINTER SCHOOL, UNIVERSITY OF ARIZONA

May 2013–2016

- Mastered concepts, ran simulations, and proved theorems in a high-intensity one week program.

Education

PH.D. IN MATHEMATICS, CORNELL UNIVERSITY

May 2017

- Thesis: *Counterexamples related to the Sato–Tate conjecture.*

M.S. IN MATHEMATICS, CORNELL UNIVERSITY

May 2017

- Completed graduate-level coursework in Mathematics and Computer Science.

B.S. IN MATHEMATICS, UNIVERSITY OF NEBRASKA OMAHA

August 2012

- Minored in Computer Science, graduated *summa cum laude*, GPA 4.0.

Leadership

Teaching Assistant, *Cornell University*. Coordinated logistics, teaching, and grading for a course with 300 students, 12 faculty, and 12 undergraduate assistants. Assisted in teaching mathematics at undergraduate and graduate levels.

Resident Assistant, *Chesterton House*. Directed event-planning, recruitment, and finances for an academic living center.

Skills

Programming: C#, R, Python, F#, PowerShell, Scala, C, Java, and \LaTeX .

Big Data: Microsoft Cosmos, U-SQL, (Scope), SQL, Apache Spark, Microsoft Analytics (Kusto), and Luigi.

Web: Azure, Amazon Web Services (AWS), HTML, and CSS.