

## John Fox

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Recent master's graduate with 2+ years data analysis and visualization experience. Passionate about statistical thinking and extracting insights from data. Seeking to leverage programming skills to advance data-driven decision making. Self-starter with top communication skills and a mindset tuned for problem solving.

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### Education

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**University of Illinois**, Master of Computer Science

**July 2023**

**University of Minnesota**, M.S. Chemistry, GPA 4.00

**August 2021**

**Carleton College**, B.A. Chemistry, GPA 3.78, *cum laude*

**June 2016**

### Relevant Coursework

Applied Machine Learning

Data Analysis Mthds in Physics

Software Engineering

Data Structures

Cmptr Sim in Cmplx Phys Syst

Differential Equations

Statistics

Multivariable Calculus

Microeconomics

Linear Algebra

Statistical Thermodynamics

Macroeconomics

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### Technical Skills

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#### Languages

Python - Expert

R - Advanced

Java - Advanced

Wolfram - Intermediate

SQL - Intermediate

#### Packages

NumPy, SciPy

Matplotlib, Pandas

Seaborn, BS4

scikit-learn

Tidverse

#### Software

Jupyter Notebook

Sublime Text, RStudio

Microsoft Office

Google Workspace

GitHub, Git

#### Techniques

Regression, OOP

Monte Carlo Methods

Machine Learning

Regex, Data Cleaning

Hypothesis Testing

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### Experience

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**Graduate Research Assistant**, University of Minnesota, Duluth, MN

**2019 - 2021**

- Built automated spectral analysis program using Python NumPy, SciPy, Pandas, and Matplotlib libraries
- Authored master's thesis consisting of original research and comprehensive statistical analyses
- Routinely presented results and progress to professors and peers both verbally and in writing

**Medical Scribe**, Emergency Physicians Professional Assn., Bloomington, MN

**2016 - 2018**

- Composed comprehensive provider notes for over 4000 emergency department patient encounters
- Interfaced with physicians, nurses, and EMTs to ensure accurate documentation using Epic software
- Trained ten recently hired scribes, logging over 700 hours of one-on-one training

**Snyder Scholarship**, University of Illinois, Urbana-Champaign, IL

**2015**

- Synthesized, characterized, and tested a novel set of asymmetric phase transfer catalysts

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### Projects

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**Benford Simulation**, Python, [github.com/JohnMcGrane/Simulating\\_Benford](https://github.com/JohnMcGrane/Simulating_Benford)

**2021**

- Statistical analysis of custom Monte Carlo simulation designed to reproduce the Benford distribution

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### Awards, Activities, & Service

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**Harriet Sheridan Endowed Prize**

**2015**

- Awarded to two outstanding writers in each Carleton College class

**NCAA DIII Soccer**, Carleton College, Northfield, MN

**2012 - 2015**

**Volunteer**, Tumbaco, Ecuador

**2018 & 2019**

**High School Soccer Coach**, Marshall School, Duluth, MN

**2018 - 2021**

**Adaptive Ski Volunteer**, Courage Kenny Rehabilitation Institute, Duluth, MN

**2019 - 2020**