

John Jardel

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EDUCATION

The University of Texas

2008-2014

- *Ph.D.* in Astrophysics
- Dissertation: "Measuring Dark Matter Profiles Non-Parametrically in Local Group Dwarf Spheroidals"

Rutgers University

2004-2008

- *B.S.* in Astrophysics, Minor in Philosophy
- Magna cum Laude with Departmental Honors

RELEVANT SKILLS

- Broad knowledge of numerous supervised and unsupervised Machine Learning and statistical methods
- Expert in Python (SciPy stack, sklearn, pandas), SQL, UNIX shell
- Familiarity with Javascript/HTML/CSS and developing web applications with Python's Flask
- Experience working closely with product and engineering, within an Agile development framework

COOL STUFF

- [@Probably_POTUS](#) - a Twitter bot that analyzes text from @realDonaldTrump tweets to decide if he wrote them¹
- [Astronomy on Tap ATX](#) - watch me explain my dissertation to a crowded bar²
- [Data Science Blog](#) - some fun side projects I've worked on and written about over the years³

EXPERIENCE

Data Scientist, Square Root

2014-present

Working for a startup, I've had to wear many hats in my role. I'm equally comfortable writing production code, walking a client through an analytics consulting project, or building a supervised learning model from scratch.

- Led the effort to build personalized, user-specific recommendations into our product
- Analyzed user behavior from clickstream data and advised C-level executives on product strategy
- Built and deployed a model to classify types of user comments to inform managers of common patterns
- Led a year-long consulting project focused on explaining the variance in retailer profitability from store to store
- Developed a web-based platform to monitor data quality concerns that sharply reduced the number of issues
- Designed and implemented complex ETL pipelines to process customer data

Graduate Researcher/PhD Candidate, The University of Texas

2008-2014

For 6 years, I conducted self-directed research modeling the dark matter halos and black holes found in the smallest galaxies. I designed and led my own research projects which culminated in 6 first-author publications.

- Developed cutting-edge models which I used to reveal new details about galaxy formation
- Created custom statistical analysis software to interpret and visualize modeling results
- Performed advanced image/spectral analysis on raw data from astronomical observations
- Designed and implemented a PostgreSQL database to store modeling results
- Utilized over 3 million CPU hours on 300-TFLOP supercomputers solving scientific computing problems

¹ <https://jjardel.github.io/probablyPOTUS/>

² <https://youtu.be/xt6ZUGmqZeM>

³ <https://jjardel.github.io/blog/>