Alison Mansheim

Palo Alto, CA | alison.mansheim@gmail.com
amanshei.github.io | (703) 628-4246 | asmansheim

SKILLS Python (pandas, numpy, scipy, scikit) [Advanced], MySQL, Unix/Linux, C, LaTeX

EXPERIENCE

Insight Data Science **January 2018 - Present**
Fellow *Palo Alto, CA*

- Applied analytics and machine learning (Random Forest) to evaluate matching algorithm as data science consultant for "AI Powered" start-up The Guild, Inc.
- Implemented data driven UX recommendations to remove bias from user profile questions and increase user engagement

University of California, Davis **2009-2016**
Physics Doctoral Research and Teaching Fellow *Davis, CA*

- Co-authored proposal and conducted observations on world's second largest optical telescope
- Constructed entire pipeline in **Python** and **MySQL** to clean, process, combine and visualize data from multiple data sets (including the *Hubble Space Telescope*), successfully extracting signal from >100,000 noisy sources
- Completed statistical analysis (Monte-Carlo, bootstrap, K-S test) resulting in two, first-author publications in peer-reviewed scientific journals, including a series of **Jupyter Notebooks** to facilitate collaboration
- Contributing member of Merging Cluster Collaboration, uniting computer simulations and observations to study dark matter (see Mansheim et. al 2017a)
- Contributing member of Observations of Redshift Evolution in Large Scale Environments Survey, combining and analyzing data from multiple telescopes to study the effect of environment on galaxy evolution in the early universe (see Mansheim et. al 2017b)
- Assisted in over 18 quarters of teaching and grading for physics courses, including Electricity&Magnetism, and as primary TA for introductory astronomy courses, including Intro to Cosmology

San Francisco State University **2006-2009**
Physics Research Fellow *San Francisco, California*

- Created **C** module modeling velocity dispersion in cores of clusters of galaxies to be adopted into codebase comparing theoretical models (χ^2 test) with observations to study dark matter

National Radio Astronomy Observatory **2005-2006**
Research Intern *Charlottesville, Virginia*

- Created **Python** module to remove radio interference from pulsar data
- Observed emission from pulsars on world's largest maneuverable and stationary single-dish radio telescopes in Greenbank, WV and Arecibo, Puerto Rico

EDUCATION

PhD Physics, University of California – Davis **2016**
MS Physics, San Francisco State University **2009**
BA Astrophysics, University of Virginia **2005**