

Alison (Ali) Mansheim

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Experience

Insight Data Science

January 2018 - Present

Fellow

Palo Alto, CA

- Applied machine learning (Logistic Regression, Random Forest) and analytics to evaluate matching algorithm as consultant for “AI Powered” company The Guild, Inc.
- Implemented data driven UX recommendations to improve 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 largest optical telescope (Keck)
- Constructed pipeline in **Python** and **MySQL** to clean, process and plot cosmological data, including a series of **Jupyter Notebooks**.
- Completed statistical analysis (Monte-Carlo, KS test, Chi Sq.) resulting in two first-author publications in peer-reviewed scientific journals
- Contributing member of Merging Cluster Collaboration, uniting simulations and observations of galaxy clusters to constrain properties of dark matter (see Mansheim et. al 2017a)
- Contributing member of ORELSE Survey, analyzing multi-wavelength data to study environmental effect of large-scale structure on galaxy evolution (see Mansheim et. al 2017b)
- Assisted in over 18 quarters of teaching and grading for physics and astronomy courses, including Modern Physics, Electricity and Magnetism and Intro to Cosmology

San Francisco State University

2006-2009

Physics Master’s Research Fellow

San Francisco, California

- Created **C** module modeling anisotropic velocity dispersion in cores of clusters of galaxies to be adopted into codebase comparing theoretical models with observations to study dark matter

National Radio Astronomy Observatory

2005-2006

Research Intern

Charlottesville, Virginia

- Created **Python** module to remove radio interference for detection of giant pulses
- Observed radio emission from pulsars on world’s largest maneuverable and stationary single-dish radio telescopes in Greenbank, WV and Arecibo, Puerto Rico

University of Virginia

2003-2005

Research Intern

Charlottesville, Virginia

- Created suite of models in **C** using different ionization parameters for simulation code *Cloudy*
- Created outlier tests in **PostgreSQL** for second release of 2 Micron All-Sky Survey data

Education

PhD Physics, University of California – Davis

2016

MS Physics, San Francisco State University

2009

BA Astrophysics, University of Virginia

2005

Skills

Python (Pandas, NumPy, SciPy, Scikit) [>10 yrs], MySQL, C, Unix/Linux [3 yrs]