Alison Mansheim

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

SKILLS

Python (pandas, numpy, scipy, scikit) [Advanced], SQL, Unix/Linux, C, IDL

EXPERIENCE

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

- Consulted for an early-stage "AI Powered" start-up to provide actionable insights on how to leverage analytics and machine learning
- Delivered data-driven recommendations and UX solutions to identify bias and improve current model validation
- Evaluated the features for their current recommender system using a Random Forest model (in **Python**), which revealed user behavior that challenged their initial assumptions

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

- Constructed a pipeline (in **Python** and **SQL**) to clean, wrangle, combine and visualize data from multiple data sets (including *The Hubble Space Telescope*) that successfully extracted signal from >100,000 noisy sources
- Owned the statistical analysis (Monte Carlo, bootstrap, KS test, regression) that resulted in two, first-author publications in peer-reviewed scientific journals
- Assisted in teaching over 18 quarters of physics and astronomy university courses
- Co-authored the proposal (10% acceptance rate) and conducted observations of hundreds of faint galaxies on the world's second largest optical telescope (*Keck*)
- Ruled out the hypothesis of a massive burst of star formation using models of galaxy evolution in cluster mergers for the Merging Cluster Collaboration (Mansheim et. al 2017a)
- Discovered a statistically significant suppression of star formation using models of dark matter in cluster mergers in collaboration with Observations of Redshift Evolution in Large Scale Environments Survey (Mansheim et. al 2017b)

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

- Created a model (in **C**) of dark matter in cluster cores that recovered parameters with 95% confidence and enabled comparison of theoretical models with observations (χ^2 test)

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

- Created a module (in **Python**) that removed radio interference from pulsar data
- Detected pulsar emission signal using the 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**