KATELYN STRINGER

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EDUCATION

Ph.D. Astronomy, Texas A&M University   **Anticipated May 2020**
Research Specialty: Time series analysis and classification of stars in the Milky Way Galaxy

Applied Statistics Certificate, Texas A&M University   **Anticipated May 2020**
Courses: Overview of Math Stats, Stat. Computing w/ R & Python, Databases & Comp. Tools in Big Data (Spring 2019)

M.S. Astronomy, Texas A&M University   **May 2018**
GPR: 3.89/4.00
Honors: Diversity Fellow (2015-18), College of Science Leadership in Equity & Diversity Award 2018

B.S. Physics, Math Minor, Middle Tennessee State University   **May 2015**
GPA: 3.87/4.00, Magna Cum Laude, Honors Thesis: "Photometric Calibration of AggieCam"
Honors: Buchanan Fellow (2010-15), Omicron Delta Kappa, Phi Kappa Phi Fellowship (2015), Sigma Pi Sigma

EXPERIENCE

Graduate Research, Texas A&M University   **August 2016 – Present**
- Use Python, SQL, and R to identify specific signals from sparse and noisy time series data.
- Used cluster computing environment to fit periodic function to data from ~714,000 stars in parallel.
- Trained Random Forest to build a binary classifier for RR Lyrae stars, achieved 85% precision & 75% recall.
- Provided weekly progress updates to multidisciplinary team.
- Collaborated remotely with international researchers.
- Prepared and documented data products for publication.

Instructor of Record: Observational Astronomy, Texas A&M University   **August 2018 – Present**
- Lecture on introductory astronomy topics and train students on telescope operations.
- Responsible for organizing and teaching course materials, assigning grades, and managing the classroom.

Organizer: Equity & Diversity Group, Texas A&M University   **October 2016 – Present**
- Work with team to organize, advertise, and facilitate monthly discussions on diversity, equity, and inclusion.
- Develop and deliver presentations on relevant topics.
- Seek out and invite guest speakers.
- Cowrote funding proposal for 2016-17 Academic year and received requested funds.
- Won 2018 College of Science Leadership in Equity And Diversity (LEAD) Award*.

Movie Recommendation Project, Texas A&M University   **March – April 2018**
- Built collaborative user-based filtering recommendation system powered by user ratings from MovieLens.
- Used Github to build project with team. Project link: https://github.com/stringkm/movie-matchmaker

SKILLS

Data, 4+ years: time series, machine learning, classification, regression*, simulations*, MCMC*, preparation, documentation

Programming, 4+ years: Python (bokeh*, Jupyter, matplotlib, numpy, pandas, sklearn, seaborn), SQL*, R*, Bash, SLURM*

Leadership, 5+ years: organizing and managing department diversity meetings & public stargazing events

Communication, 7+ years: deliver weekly research reports to advisors, teach weekly lectures, 4 oral presentations at national conferences, publication in collaboration review, host monthly department diversity discussions, public outreach

* Limited exposure