Yuanhao Shi

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EDUCATION

08/2018-05/2022 Ohio State University,
Bachelor of Science in Astronomy, Bachelor of Science in Physics,
Cum Laude, With research Distinction in Astronomy and Astrophysics, GPA 3.5

09/2022-Present New York University
Master of Science in Computer Engineering

INTERNSHIP EXPERIENCE

- **Microsoft** Apr 2021 – May 2021
  - Position: Data Analyst
  - Main responsibilities:
    1) Conducted data processing and data visualization about the Trend Analysis of Box Office and Public Opinion; By analyzing the revenue and vote score of movies production from 5 aspects - budget, genres, production countries, release date, and director, I managed to give predictions about the future box office changing trend.
    2) Used machine to study 2021 World Covid-19 cases and inferred the pandemic trend; Summarized the reasons for successful pandemic control cases.

- **The Ohio State University**
  - Position: Instruction Assistant
    1) Instructional Assistant, Astronomy 1101 Lab Jan 2022 - May 2022
       From Planets to the Cosmos. Instructional Aid. Responsibilities included setting up and conducting labs with students, grading, and familiarizing myself with the labs to prepare to be a TA.
    2) Teaching Assistant, Astronomy 1140 Lecture Aug 2021 - Dec 2021
       Planets & The Solar System. Responsibilities included attending lectures when necessary to help with demonstrations, holding office hours, and assisting with the preparation and administration of exams.

PUBLICATIONS

Label Transfer from APOGEE to LAMOST and BOSS (in preparation)
Advisor: Johnson Jennifer

RESEARCH EXPERIENCE

- **Label Transfer from APOGEE to BOSS** May 2021 – Present
  - Position: Core team member
  - Main responsibilities: Using the Cannon 2, a data driven method, to predicate stellar parameters for 30,000 F, G, K stars, from the SDSS's Baryon Oscillation Spectroscopic Survey (BOSS) under the Apache Point Observatory Galactic Evolution Experiment (APOGEE) scale to reduce the labels' inconsistencies between two surveys.

- **Label Transfer from APOGEE to LAMOST** May 2021 – May 2022
  - Position: Core team member
  - Main responsibilities: Using the Cannon 2 to investigate the effect of the training set size for the Cannon machine learning method on the accuracy of the predicted results between APOGEE and The Large Sky Area Multi-Object Fiber Spectroscopic Telescope (LAMOST).

PRESENTATIONS

- Summer Undergraduate Research Project (SURP) Aug 2021
  - Research Project with the OSU astronomy department: Presented the results from Label Transfer from APOGEE to LAMOST and BOSS to peers and faculty.

- Sloan Digital Sky Survey (SDSS) Aug 2021
  - SDSS 2021 meeting: Made a lightening talk and presented a poster about project Label Transfer from APOGEE to LAMOST.

ADVANCED COURSEWORK

- Astron 3350 - Methods of Astronomical Observation & Data Analysis
- Astron 5205 - Planetary Science
- Astron 5681 - Principles of Stellar Evolution & Nucleosynthesis
- Astron 5682 - Introduction to Cosmology
- Astron 5830 - Observed Properties of Astronomical Systems
- Math 2415 - ODE and PDE
- Math 2568 - Linear Algebra
- Physics 5300 - Theoretical Mechanics
- Physics 5400/5401 - Advanced E&M 1 & 2
- Physics 5500/5501 - Quantum Mechanics 1 & 2
- Physics 5600 - Statistical Mechanics
- Physics 5700 - Advanced Physics Lab

SKILLS

- Languages: Python, JavaScript, C++
- Tools: Google Analytics, GitHub