Imran Syed Hasan

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55 Trumbull Street, Apt. 20 New Haven, CT 06501

EDUCATION

UNIVERSITY OF ROCHESTER — Rochester, NY
Aug 2008 – May 2012

B.S. Physics and Astronomy
Sigma Pi Sigma Honors Society

COURSERA.ORG CERTIFICATIONS

- Machine Learning
- Introduction to Data Science

CURRENT OCCUPATION

SMARTS DATA MANAGER — New Haven, CT
October 2012-Present

- Manage observational queues for SMARTS 1.3-m and 1.5-m telescopes
- Manage data distribution for ANDICAM and CHIRON instruments
- Manage and maintain data archive for ANDICAM
- Created and maintain current ANDICAM reduction pipeline
- Created and maintain SMARTS End of Night Report and reporting tools
- Created and maintain SMARTS website content and design
- Communicate scientific needs and goals of Principle Investigators to observers and technical staff

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES

- Isler, J. C., Urry, C. M., Bailyn, C. M., Smith, P. S., Coppi, P., Brady, M., MacPherson, E., **Hasan, I.**, Buxton, M., 2015, The SMARTS Multi-Epoch Optical spectroscopy Atlas (SaMOSA): An Analysis of Emission line Variability in Southern Hemisphere Fermi Blazars, ApJ, 804, 7I
- Moore, A., **Hasan, I.,** Quillen, A., 2013, Limits On Orbit-Crossing Planetesimals In The Resonant Multiple Planet System, KOI-730, MNRAS 432, 1196
- Quillen, A., **Hasan, I.,** Moore, A., 2012, Capture of Irregular Satellites Via Binary Planetesimal Exchange Reactions, MNRAS, 425, 2507

POSTER PRESENTATIONS

- **Hasan, I.**, Misenti, V., Henry, T. J., 2014, The SMARTS Observatory: Rich Science Accessible for Everyone, AAS #223
- **Hasan, I.,** et al., 2014, SMARTScience Tools: Interacting With Blazar Data In The Web Browser, AAS HEAD #14
- Baldassare, V., Feldman, D., Greenbaum, A., **Hasan. I.**, Mahalchick, S., Liu, C., COSMOS Team, 2010, A Morphological Study of Compact Narrow Emission Line Galaxies In The COSMOS Field, AAS #215

RESEARCH EXPERIENCE

YALE-SMARTS — New Haven, CT
October 2012 – Present

- Reduce optical and infrared data taken with SMARTS 1.3-m telescope
- Perform photometry of blazars and x-ray binaries
- Calculated photometric calibration of comparison starts in blazar fields
- Created interactive, accessible, and dynamic web based database of blazar data
- Created and maintain blazar research group web page
- Created and maintain X-ray binary research group web page

Rochester, NY
November 2010 – May 2012

COMPUTATIONAL ASTROPHYSICS LAB

- Modeled formation, evolution and dynamics of existing planetary systems with computer simulations
- Wrote C++ scripts to analyze and reduce data to compute statistical models of interactions of planets and particles in planetary systems
- Presented findings at *Rings Conference* at Cornell, July 2011, REU Symposium at The University of Rochester, July 2011, and at RSPS at Siena College, April 2012

COMPUTER PROGRAMING SKILLS

- Proficient in Linux/Unix environments
- Proficient in Python, numpy, matplotlib; comfortable with astropy, scipy, pandas
- Proficient in HTML/CSS
- Comfortable with IRAF & DS9
- Familiar with Java Script/J Query
- Familiar with relational databases
- Basic knowledge of IDL
- Basic knowledge of Octave
- Basic knowledge of TOPCAT

OBSERVING EXPERIENCE

VISITING TELESCOPE OPERATOR

Cerro Tololo, Chile

- 20 nights observing on SMARTS 1.3-m telescope with ANDICAM dual optical and infrared imager. Observed in queue + service mode, fulfilling request for many proposals

OBSERVER

KPNO, Arizona

- 11 nights observing on WIYN 3.5-m telescope with Hydra

TEACHING EXPERIENCE

ASSISTANT ADVISOR

Yale University
May 2013 – May 2014

- Directed and monitored summer research project for Yale sophomore student
- Directed and monitored senior thesis for Yale undergraduate physics student

TUTOR

University of Rochester
August 2011-May 2012

- Lead weekly workshops for students, presenting problems and solutions
- Worked one on one with students in introductory courses as a private tutor

PUBLIC OUTREACH

ASTRONOMY ON TAP CT

New Haven, CT
2013 –2015

- Invited speaker, February 16. Gave public talk on black holes in the Milky Way galaxy to audience of approximately 200 members of the public at local bar.
- Assisted in setting up venue, directing and answering questions from public, helped advertise events on social media