Husni Almoubayyed

http://www.husni.space | husnial@cmu.edu | (412) 345 – 1875

CONTACT & LINKS

Husni Almoubayyed,
Wean Hall 8419,
5000 Forbes Ave,
Pittsburgh, PA 15213
Phone: (412) 345 – 1875
Website: **www.husni.space**
Email: **husnial@cmu.edu**
Github: **hsnee**
LinkedIn: **husnialmoubayyed**

PROGRAMMING

Wrote & published reviewed libraries:
• Python • C/C++ • Unix/Shell • LaTeX
Experienced:
• Matlab • Javascript • Mathematica
Familiar:
• CSS • HTML • R
See Github (link above) for examples

GRANTS & AWARDS

• Royal Astronomical Society (RAS) Fellowship (2015 – Present)
• Grants from Stanford/KIPAC (2017), LSST Corporation (2017), CMU Provost's Office (2017), RAS (2015)

OUTREACH

Pittsburgh Hack Hour
Organizer (2017 – Present (biweekly))
TheGIST Magazine
Specialist Editor (2015 – Present)
Science Connects
STEM Ambassador for West of Scotland (2015 – 2016)
Glasgow Science Festival
Offical Media Reporter (2015)
UKSEDS
Assistant Officer (2015 – 2016)
WikiProject Physics
Contributor (2015 – Present)

AFFILIATIONS

Royal Astronomical Society (Fellow)
LSST Dark Energy Science Collaboration (Member)
American Physical Society (Member)
Institute of Physics (Member)
LIGO Science Collaboration (Former Member)

Interested in Data Science opportunities for Summer '18.

EDUCATION

CARNEGIE MELLON UNIVERSITY — Fall 2016 – Present
PhD in Physics
Pittsburgh, PA, USA.

UNIVERSITY OF GLASGOW — Fall 2012 – Spring 2016
BSc (Hons) in Astrophysics, with Honours of the First Class
Glasgow, Scotland, UK. GPA: 4.0 / 4.0

EXPERIENCE

CARNEGIE MELLON UNIVERSITY — Sep 2016 – Present
Graduate Researcher | Large Synoptic Survey Telescope (LSST)

- Writing Python libraries/metrics to measure impact of PSF modeling errors on weak lensing shear signal to give feedback on algorithms for the LSST (largest galaxy survey in history – 10s of billions of galaxies).
- Worked on numerically validated Core Cosmo Library (Python & C++).

Graduate Teaching Assistant

- Led recitations, wrote programming labs (Python), held office hours.
- Participated in CMU's Eberly Teaching Excellence center.
- Rated consistently >1 standard deviation above dept average.

UNIVERSITY OF GLASGOW — Sep 2015 – May 2016
Undergrad Researcher | Laser Interferometer Gravitational Wave Observatory (LIGO)

- Worked on '17 Nobel Prize-winning project, co-authored 2 journal papers, presented a talk (U. Glasgow) and a poster (U. Southampton).
- Used Bayesian inference to set upper limits on GW signal from the Sun using time-series datasets (∼1.5 yrs of data).

Undergraduate Teaching Assistant

DURHAM UNIVERSITY — May 2015 – Aug 2015
Undergraduate Researcher | Dark Energy Spectroscopic Instrument (DESI)

- Wrote parallelized modules in C & Python to mitigate bias in galaxy clustering due to redshift incompleteness caused by fiber collisions.
- Published results (talk) at CosPA '15 Symp. (KAIST, Daejeon, S. Korea)

WORKSHOPS

Citadel LLC/Correlation One Datathon
Sep 2017 | CMU, Pittsburgh, PA
In <7 hours, I used big datasets to create a Bayesian model to predict posterior probability of cancer from DNA expression level.

LSST Corporation Hack Week
Jul 2017 | Fermi National Lab, Batavia, IL
Wrote Core Cosmology Library code, particularly MCMC likelihood analyses.

Next Gen Computational Modelling Summer Academy
Jun 2016 + Jun 2015 | U. Southampton, Southampton, UK
Presented poster. Worked on pandas & scikit-learn (Python); CUDA (GPUPP in C)