Jackson T. Henry

Rochester Institute of Technology Undergraduate
Physics Major, Mathematics Minor

Contact Information:

Mailing Address:

Jackson Henry

6000 Reynolds Dr, #0239

Rochester, NY 14623

Phone Number:

1-413-658-7876

Email:

Jackson.henry@ligo.org

Education:

❖ Rochester Institute of Technology (RIT) class of 2016
❖ Amherst Regional High School (ARHS) class of 2012

Research Experiences:

❖ RIT Center for Computational Relativity and Gravitation (CCRG) fall 2013 - present
  • Worked, under Dr. Whelan, creating and modifying python scripts to calculate and visualize the detection radius of all the Laser Interferometer Gravitational Observatory (LIGO) detectors.
  • Future work will include creating a combined probability detection map for all LIGO telescopes and overlaying it on a map of the visible universe.
  • Upcoming presentation at Imagine RIT
❖ UMass Amherst LIGO group, summer 2012
  • Updated LIGO summary pages (web pages that display live primary and secondary data channels).
  • Began to set up summary pages on LIGO Hanford server.
  • Fixed real time plotting on summary pages.
❖ UMass Amherst LIGO group, 2011
  • Worked for Dr. Cadonati, under her graduate student Dr. Mohopatra, on a visual aid of the r-mode oscillations of a neutron star for use in presentations.

Employment:

❖ RIT CCRG, research assistant (see research experience)
❖ UMass LIGO group research assistant (see research experience)
❖ Freelance web developer/designer — Built webpages on modern standards and streamlined existing webpages to take advantage of new technologies, summer 2013

❖ Consultant for the Concord Consortium — Explored and reported on inaccuracies in the [Next Generation Molecular Workbench](#) physics simulation, using Python, summer 2012.

Computational Skills:
- ❖ Languages
  - Extensive experience with Python (Numpy, Scipy, Matplotlib, Mlab, Sympy)
  - Extensive experience with JavaScript (D3.js, Jquery), CSS3, HTML5
  - Mathematica
  - Basic MATLAB and numerical simulation techniques
  - LaTeX
  - Arduino
  - Some experience with the bash shell
- ❖ Operating Systems
  - Ubuntu
  - OSX
  - Windows
- ❖ Programs
  - Basic VIM
  - Sublime Text 2

Independent investigations:
- ❖ Created online interactive data visualizations for various datasets (e.g. [sea level since 1860](#), [average age of the global population](#))
- ❖ Designed in-browser physics simulations ([earth gravity](#), [2d spring](#))
- ❖ [Python programs](#) for various scientific tasks (Discrete Fourier transform, Graphing Calculator, spherical Harmonic visualization, kinematics solver)

Leadership Positions:
- ❖ Founder and leader of ARHS swing dance club; 2011-2012

Professional Organization Memberships:
2012-current: LIGO Scientific Collaboration (LSC)
2012-current: Society of Physics Students (SPS)
2013-current: RIT CCRG
2013-current: STARS astronomy group
Summer 2013:   UMass Amherst Physics Department