

JOHN KELLAND

9636 Oakbrooke Lane Apt 12, Howell, MI 48843 | (810) 623-5753 | jak374@cornell.edu

Education

Bachelor of Science: Mechanical Engineering Expected: May 2018
• Minor in Astronomy, GPA = 3.560/4.000, Major GPA = 3.553/4.000
Master of Engineering: Aerospace Engineering Expected: December 2018
Cornell University - Ithaca, NY

Professional History

Undergraduate Research Assistant in Astronomy 09/2015 to Current
Cornell University Department of Astronomy - Ithaca, NY
• Design and employ image processing software in Python
• Execute thorough analysis, pattern identification, and result organization (using Python) for large datasets of images captured by the Cassini-Huygens spacecraft

Undergraduate Research Assistant in Optical Engineering 09/2016 to 12/2016
Cornell University Department of Astronomy - Ithaca, NY
• Modelled a large-scale goniometer using optical design software
• Dismantled a complex mechanical system to identify and resolve alignment problems

Computer Skills

- MATLAB
- Python
- Microsoft Office
- QuickBooks
- ANSYS
- Autodesk Fusion 360
- LaTeX
- Windows / Linux

Honors

- Cranson and Edna B. Shelley Undergraduate Research Award (May 2017)
- Cornell Friends of Astronomy Prize for Best Undergraduate Research Poster (May 2016)
- Dean's List at Cornell University (June 2015, December 2016, December 2017)

Organizations and Activities

- Member, American Society of Mechanical Engineers [National Org. and Cornell Chapter] (Fall 2017 – Present)
- Grand Treasurer, Kappa Sigma Collegiate Social Fraternity (Fall 2015 – Present)
- Member, Alpha Phi Omega National Service Fraternity (Spring 2015 – Fall 2015)
- Job Shadowing, GM Powertrain Materials Group, Chemistry Lab (Winter 2015)
- National Student Leadership Conference in Engineering (Summer 2013)

Presentations

- 49th Division for Planetary Sciences Meeting, Hosted at the Utah Valley Convention Center (Fall 2017)
- Titan Surface Meeting, Hosted at Massachusetts Institute of Technology (Fall 2017)
- Cornell Astronomy Summer REU Undergraduate Research Symposium, Hosted at Cornell University (Spring 2017)
- 48th Lunar and Planetary Sciences Conference, Hosted at The Woodlands Waterway Marriott (Spring 2017)
- Cassini VIMS Team Meeting, Hosted at Cornell University (Spring 2016)
- Cornell Friends of Astronomy Undergraduate Research Symposium, Hosted at Cornell University (Spring 2016, 2017)
- Cassini RADAR Team Meeting, Hosted at NASA Jet Propulsion Laboratory (Winter 2016)

Publications/Abstracts

- [1] J. Kelland et al. (2018) *49th Lunar and Planetary Science Conference*, Abstract 2836
[2] J. Kelland et al. (2017) *49th Division for Planetary Sciences Meeting*, Abstract 304.09
[3] J. Kelland et al. (2017) *48th Lunar and Planetary Science Conference*, Abstract 2748
[4] E. P. Turtle et al. (2018) *49th Lunar and Planetary Science Conference*, Abstract 1656
Others