

# Matthew C. Hancock

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## Education

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Fall 2012-present	<b>Ph.D. Candidate</b> in Applied and Computational Mathematics <b>Florida State University</b> <b>Focus:</b> Machine learning and image-processing methods for lung analysis <b>Relevant coursework:</b> Numerical Methods for Interpolation, Integration, ODEs/PDEs, Linear Algebra, and Optimization, Machine Learning, Probability theory and Statistical Inference
Spring 2012	<b>B.S.</b> in Applied Mathematics with Computer Science focus <b>Ferris State University</b>

## Journal Publications

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- Matthew C. Hancock, Jerry F. Magnan. **Lung nodule malignancy classification using only radiologist quantified image features as inputs to statistical learning algorithms: probing the Lung Image Database Consortium dataset with two statistical learning methods.** *SPIE Journal of Medical Imaging*. Dec. 2016. <http://dx.doi.org/10.1117/1.JMI.3.4.044504>

## Conference Proceedings

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- Matthew C. Hancock, Jerry F. Magnan. **Predictive capabilities of statistical learning methods for lung nodule malignancy classification using diagnostic image features: an investigation using the Lung Image Database Consortium dataset.** *SPIE Medical Imaging Symposium, Computer-Aided Diagnosis Conference*. Feb 2017.

## Work Experience

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Fall 2012-present	<b>Teaching Assistant</b> at Florida State University  <b>Responsibilities / Accomplishments:</b> <ul style="list-style-type: none"><li>Teaching assistant for Foundations of Computational Math (graduate level course) (Fall 2016 and Spring 2017).</li><li>Instructor for C++ computing seminar (Fall 2016).</li><li>Instructor for Calculus 1 (Spring 2016 and Summer 2016).</li><li>Instructor for Precalculus (Fall 2014 and Spring 2015).</li><li>Recitation instructor for Discrete Mathematics (Fall 2015).</li><li>Assistant with lower-level math courses (College algebra, Liberal Arts math, Trigonometry, Business calculus).</li></ul>
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*Fall 2011-Fall 2012*

**Web developer** at Occupational Research and Assessment

**Responsibilities / Accomplishments:**

- Created and helped to design web systems for a number of third-party organizations using Ruby.
- Learned basic web development skills.

## Computer skills

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- Python (NumPy, SciPy, Scikit Learn, Scikit Image, Theano, Cython)
- C++
- L<sup>A</sup>T<sub>E</sub>X
- Web (HTML, CSS, JavaScript; lesser: Ruby, PHP)
- SQLite, MySQL