Nicholas **Escanilla**

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Education _____

University of Wisconsin-Madison   *Aug. 2016 – Present*
Master of Science in Computer Science

Lake Forest College   *Jan. 2013 – May 2016*
Bachelor of Arts in Mathematics, Minor in Computer Science

Skills _____

Programming:
- **Java** for breadth-first, depth-first, A*, minimax, and alpha-beta search algorithms, and decision trees.
- Exposure to **Python** for introductory programming concepts and methods for data science.
- **R** for data manipulation, cross-validation, parallelism, neural networks, support vector machines, and the creation of novel and baseline feature selection algorithms.

Software Packages: LaTeX, MATLAB, SPSS, SQL
Implementation: OSX Terminal, Integrated Development Environments

Experience _____

Computation and Informatics in Biology and Medicine Fellow   *June 2017 – Present*
University of Wisconsin-Madison   *Department of Computer Sciences*
- Empirically proved the advantage of a novel feature selection algorithm.
- Outperformed other approaches in accuracy, number of features retained, and computation time.
- Submitted a Master's thesis on a comprehensive survey of feature selection techniques.

Advanced Opportunity Fellow   *Aug. 2016 – June 2017*
University of Wisconsin-Madison   *Department of Computer Sciences*
- Studied feature selection algorithms used in bioinformatics.
- Generated synthetic data based on parity function of orders two, three, four, and five in R.

Integrated Biological Sciences Summer Research Program (IBS-SRP) Researcher   *May 2015 – Aug. 2015*
University of Wisconsin-Madison   *Department of Biostatistics & Medical Informatics*
- Developed and tested a novel feature selection algorithm on genomic data in R.
- Summarized findings at the IBS-SRP annual symposium and in the 2015 IBS-SRP journal.

Summer Program in Quantitative Sciences Researcher   *June 2014 – July 2014*
Harvard T.H. Chan School of Public Health   *Department of Biostatistics*
- Completed comprehensive coursework in Biostatistics and Epidemiology.
- Analyzed the relationship of genetic and environmental factors for ovarian cancer in R.
- Delivered a presentation of findings at the symposium: "Pipelines into Biostatistics."

Publications _____

Escanilla, N. A. (2017). *A Comparative Analysis of Feature Selection Techniques for a Family of Nonlinear Target Functions and Breast Cancer Diagnoses* (Master's thesis, University of Wisconsin-Madison, 2017) (pp. 1-55). Madison.

Escanilla, N. (2015). Finding gene-disease associations when hidden by gene-gene interactions. *2015 Integrated Biological Sciences Summer Research Program Journal* (pp. 79-86).

Honors & Awards _____

2017 **Fellow**, Computation and Informatics in Biology and Medicine Fellowship
2016 **Fellow**, Advanced Opportunity Fellowship
2015 **Researcher**, Supported by the National Science Foundation under grant NSF-DBI 1063085
2015 **Researcher**, Supported by the Center for Predictive Computational Phenotyping
2015 **Recipient**, Dean's List 2014 – 2015
2014 **Researcher,** Supported by the National Institutes of Health under T36 grant