Andrew C. Hawkins

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(561) 339-4065
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Research Interests

Optimization, statistical learning, scientific computing, and operations research.

Education

Master of Science in Engineering, Applied Mathematics and Statistics August 2015 – May 2017

Johns Hopkins University, Baltimore, MD

Bachelor of Science, Computational Mathematics August 2010 – December 2013

Embry-Riddle Aeronautical University, Daytona Beach, FL

Teaching Experience

Instructor

Johns Hopkins University, Baltimore, MD

- EN.550.112: Statistical Analysis II — Summer 2016

Daytona State College, Daytona Beach, FL

- MAT0028: Mathematics II — Fall 2014

Teaching Assistant

Johns Hopkins University, Baltimore, MD

- EN.550.371: Cryptology and Coding — Spring 2017
- EN.550.439: Time Series Analysis — Spring 2017
- EN.550.171: Discrete Mathematics — Fall 2016
- EN.550.461: Optimization in Finance — Fall 2016
- EN.625.741: Game Theory — Fall 2016
- EN.550.453: Mathematical Game Theory — Spring 2016
- EN.550.361: Introduction to Optimization — Fall 2015
- EN.550.400: Mathematical Modeling and Consulting — Fall 2015

Embry-Riddle Aeronautical University, Daytona Beach, FL

- MA 305: Introduction to Scientific Computing — Fall 2013
- MA 412: Probability and Statistics — Fall 2012, Spring 2013

Professional Experience

Data Scientist June 2017 – present

Stanley Black & Decker, Towson, MD

- Integrate machine learning and optimization into manufacturing processes.
- Design visualizations to inform managers and operators of potential inefficiencies.
- Create paperless manufacturing initiatives which record information and analyze data in real-time.

Data Scientist January 2014 – July 2015

Product Quest Manufacturing, Daytona Beach, FL

- Implemented statistical learning algorithms to predict the demand of finished goods.
- Navigated large data sets from a variety of sources and compiled them into a centralized database.
- Built front and back end software to distribute and automate future forecasting.
- Modeled and optimized operating procedures from component purchasing to product assembly.

Publications

[1] Smith, T. A. and **Hawkins, A.** (2015). An economic regression model to predict market movements. *International Journal of Mathematics Trends and Technology*, *28*(1), 1 – 3. doi:10.14445/22315373/IJMTT-V28P501

Languages and Technologies

Advanced: Python, MATLAB, Linux, SQL

Intermediate: Tableau, Fortran, LaTeX, R, JavaScript, HTML, CSS

Novice: Haskell, Java, Gnuplot, C++

Awards and Honors

- GAANN Fellow (2015 – 2017)
- McNair Scholar (2013)
- Shrinivas Dalal Memorial Scholarship in Mathematics, highest departmental award (2013)
- ERAU Achievement Scholarship (2010 – 2013)
- National Society of Collegiate Scholars (2011)
- Dean's List Standing (2010 – 2013)
- Eagle Scout in the Boy Scouts of America (2010)

Selected Talks

Hawkins, A. C. (2013). Exploring the Fisher Z-Transformation with applications in finance. *Undergraduate Mathematics Conference*. Embry-Riddle Aeronautical University, Daytona Beach, FL.

Side Projects

AMS Department Student Seminar, Baltimore, MD September 2016 – May 2017

Organizer

- Recruit students to give a talk about their current research, summer internships, class projects, etc.
- Coordinate plans and schedule a time and location for the presentation.
- Promote upcoming talks through various forms of media to bolster involvement.

Hawkmatix, Port Orange, FL July 2012 – present

Contributor

- Publishes open source financial data analysis and trading software with documentation.
- Creates algorithmic trading strategies based on a variety of paradigms.