Andrew C. Hawkins

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Education

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

Johns Hopkins University, Baltimore, MD

Bachelor of Science in Computational Mathematics   August 2010 – December 2013

Embry-Riddle Aeronautical University, Daytona Beach, FL

Professional Experience

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.

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

Languages and Technologies

Proficient: Python, Matlab, Linux, Fortran, LaTeX, R

Exposure: Java, Haskell, 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)

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`

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 – present

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.

Coursework

Johns Hopkins University: Computer Vision (EN.600.661), Foundations of Optimization (EN.550.661), Convex Optimization (EN.550.665), Stochastic Search & Optimization (EN.550.663), Time Series Analysis (EN.550.439), Introduction to Stochastic Processes (EN.550.426), Introduction to Real Analysis (AS.110.405), Matrix Analysis and Linear Algebra (EN.550.692), Statistical Theory (EN.550.630), Probability Theory I (EN.550.620), Introduction to Statistical Learning, Data Analysis and Signal Processing (EN.110.446), Modeling, Simulation, and Monte Carlo (EN.550.664), Optimization Algorithms (EN.550.662), Vision as Bayesian Inference (EN.600.683), Graph Theory (EN.550.672)

Embry-Riddle Aeronautical University: Complex Variables (MA 443), Operating Systems (CS 420), Probability and Statistics (MA 412), Statistics I (MA 501), Numerical Solutions to Differential Equations (MA 448), Partial Differential Equations (MA 350), Linear Algebra (MA 432), Numerical Analysis I (MA 348), Introduction to Scientific Computing (MA 495E), Mathematical Methods for Engineering & Physics I (MA 441), Mathematical Methods for Engineering & Physics II (MA 442)