Andrew C. Hawkins

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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

Professional Experience

Data Scientist June 2017 – present

Stanley Black & Decker, Towson, MD

Product Life-cycle Analysis

- Implemented manifold based clustering methods to build families of SKUs.
- Analyzed the time series demand data to segment each discovered family into life-cycle elements.
- Results included better forecasts and selection of promotional periods to bolster sales.

Vision Based Quality

- Built a full stack solution to collect annotated images via operator input.
- Used a CNN to classify images of a progressive die as correctly or incorrectly configured.
- Results included decreased cost from breaking the tool by informing the operator before continuing.

Real Time Visualization

- Built a web application dashboard to aid in the collection and visualization of data in real time.
- Augmented decision making via schedule optimization, predictive maintenance, and status alerts in real time.
- Used Quasi-Newton and simplex-based methods for optimization as well as K-means clustering, manifold learning (for semi-supervised learning), and deep learning for prediction.

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 datalake.
- Built software to automate ETL and finished goods forecasting.
- Modeled and optimized supply chain and operations procedures.

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

Classes: Optimization in Finance, Discrete Mathematics, Mathematical Game Theory, Introduction to Optimization, and Mathematical Modeling and Consulting

Embry-Riddle Aeronautical University, Daytona Beach, FL

Classes: Introduction to Scientific Computing and Probability and Statistics

Languages and Technologies

Advanced: Python, Linux, SQL, MongoDB, Octave (MATLAB)

Intermediate: Nginx, JavaScript, Vue.js, HTML, CSS, R, Tableau, LaTeX, Fortran

Interest/Learning: Rust, Golang, Haskell

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