Evan J. Coopersmith, PhD, PE – Data Scientist

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Websites: www.soilinsight.com, www.prognosticdatasolutions.com, www.traffichackers.com

Executive Summary

- Data scientist with 5 years of professional experience applying analytical expertise in multiple fields
- Educational and professional experience in the physical sciences and finance
- Published 13 first-authored and 4 co-authored manuscripts in high-impact, international journals
- Gifted teacher with recognized excellence instructing undergraduate and graduate students

Education

Ph.D., July 2013, University of Illinois, Urbana-Champaign, IL, in Civil & Environmental Engineering

B.S.E., June 2006, Princeton University, in Operations Research and Financial Engineering, *Cum Laude*

Honor Societies: Tau Beta Pi and Sigma Xi

Data Science Experience

SoilInsight – Founder and Lead Data Scientist, Chicago, IL
Developed technology to deliver accurate, high resolution soil moisture estimates for agricultural decision-support and other uses.

Jun. 2016 – Present

Prognostic Data Solutions LLC - Founder, Washington D.C. & Chicago, IL
Freelance data scientist and consultant, developing proprietary algorithms for predictive modeling.

TrafficHackers – *Developed predictive models for three major Boston highways using public traffic data. Collaborated with the Massachusetts Department of Transportation and helped to ensure optimal usage of existing datasets. Received mention in the Boston Globe.*

Private Consulting - *Developed proprietary statistical tools to assess probability of large-scale snow events in major American cities using NOAA historical climatic data.*

Private Consulting - *Derived proprietary financial metrics for calculations of inter-year margin analysis for price, cost, and volume changes.*

NASA/USDA, Hydrology & Remote Sensing Laboratory – Research Data Scientist, Washington D.C.
Achieved out-of-sample accuracy of soil moisture estimation below NASA's target of $0.04m^3/m^3$. Leveraged in-ground sensor estimates and satellite datasets. Developed predictive algorithms for soil moisture at over 100 locations nationwide. Applied geospatial approaches to produce multi-scale soil moisture estimates at USDA and Climate Reference Network test sites. Collaborated with NOAA to assess sensor reliability and CDC to predict incidence of diseases driven by soil-borne pathogens.

Aug. 2013 – Present

John Deere Technological Innovation Center – Research Data Scientist, Champaign, IL
Produced predictions of field readiness with over 90% accuracy. Worked in concert with agronomic researchers through their local offices during doctoral work. Wrote a white-paper detailing strategic intersections between academic and corporate objectives with respect to usage of 'big data.'

May 2012 – July 2013

BCW Group LLC – Principal and Co-Founder, New York, NY
One of three founding members of a quantitative hedge fund start-up at NYMEX. Achieved 7% returns during a period in which the equity markets fell 35%. Developed proprietary trading algorithms, implemented from 9/2/08 to 4/28/09. Employed machine learning models to build superior risk/reward ratios.

Jan. 2008 – Apr. 2009

Freelance Sabermetric Modeler, Princeton, NJ and Champaign, IL
Asymmetric Objectives & Inefficient Markets: A Non-Parametric Predictor for Major League Baseball Games And the Evaluation of Betting Lines – Mudd Library, Princeton University, Senior Thesis 2006.
Produced 130% annual returns. Developed a proprietary non-parametric predictor for assessing the probabilities of various outcomes using a database of over 50,000 historical baseball games. Placed over 4,000 wagers on baseball games over the course of two seasons.

Spr. 2006 – Fall 2007

Tech. Skills   Python, R, Matlab, Git