

WILLIAM MURPHY

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EXPERIENCE

Altai Capital Management

5/2014—Present

Programmer-Analyst

- Developed and maintained financial research software in Python and Haskell to collect and analyze large volumes of data from the web, including large-scale web scraping tools
- Built machine learning models of oil production, housing markets, auto sales, and other investment ideas, and collaborated with financial analysts to assess investment opportunities using these models
- Automated in-house operations and compliance processes with Python scripts

The Pennsylvania State University, College of IST

11/2012—5/2014

Research Assistant

- Built machine learning applications in Java, Python and R on top of Weka and MALLET to test new data mining and social network analysis methods, and summarized the results in academic papers
- Collaborated with professors and other graduate students to develop novel data mining techniques in several machine learning sub-domains, including sentiment analysis and probabilistic topic modeling

The Pennsylvania State University, College of IST

Office of Instructional Design and Infrastructure

3/2011—9/2012

Web & Instructional Designer

- Designed and maintained Drupal websites for online courses for the College of IST
- Worked with professors to create instructional images, web pages, and video content

TECHNICAL SKILLS

Programming Languages: Python (pandas/numpy/scikit-learn), Haskell, Java, R, SQL, C, HTML/CSS

Development Tools: git, vim, AWS (boto), Weka, MALLET, GitHub, Eclipse, Django, Drupal 7

Database Systems: MySQL, MS Access, SQLite, Hadoop/Hive

Operating Systems: Mac OS X (bash), Linux/Unix (bash), Windows 7 (PowerShell)

EDUCATION

The Pennsylvania State University, Schreyer Honors College

- Masters of Science in Information Science and Technology, May 2014 **GPA: 3.94**
Courses include: Data Mining, Big Data Fundamentals, Social Network Mining
- Bachelor of Science in Information Science and Technology, May 2014 **GPA: 3.95**
Courses include: Distributed-Object Computing, Programming Languages, Databases, Statistics

PUBLICATIONS

Michelle Newman, John Yen, Prasenjit Mitra, William Murphy, Nicholas Jacobson and Hanjoo Kim. (2013). "Supervised Machine Learning Classification of Journals Entries About Emotional Personal Experiences." *In Proceedings of American Medical Informatics Association Symposium, 2013.*

William Murphy. (2014). "Using Supervised Learning to Identify Description of Personal Experiences Related to Chronic Disease on Social Media." Master's Thesis.