Thomas D. Effland

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Education

Columbia University, New York, New York USA — August 2015 - Present

Ph.D., Computer Science, Expected May, 2020
M.S., Computer Science, Expected December, 2016
Research Area: Information Extraction and Retrieval, Knowledge Discovery and Representation, and Data Mining.
Adviser: Prof. Luis Gravano.

University at Buffalo, SUNY, Buffalo, New York USA — August 2011 - May 2015

B.S., Applied Mathematics, Summa Cum Laude, Highest Honors and Distinction, May, 2015
Minors in Computer Science and Statistics, *(GPA: 3.99/4.0, GRE: 170Q, 159V, 4.0W)*

Skills

Languages: Python, Java, C++, Javascript, SAS, Fortran 95, MatLab
Algorithms: General fluency in text analysis, probabilistic graphical models, clustering, classification, regression, dimensionality reduction, distributional semantics, and parallel algorithms.
Web & Visualization: HTML, CSS, jQuery, d3, SVG, MatPlotLib, Scrapy, Django, Flask, Nginx, and Processing.
Data: JSON, XML, SQL, MySQL, MS SQLServer, and PostgreSQL.

Relevant Experience

Graduate Research Assistant, Columbia University — August, 2015 - Present
- Researching information extraction and knowledge discovery techniques for textual data.
- Collaborating with NYC Department of Health to identify foodborne illness outbreaks from social media.

Undergraduate Researcher, SUNY, University at Buffalo — January, 2013 - May 2015
- Published 4 papers in peer-reviewed conferences (2 first author) and gave 3 conference presentations.
- Researched weakly-supervised focused web crawling for information retrieval, geospatial machine learning software for non-technical users, and scalable secure fingerprint matching algorithms.

Technology Consultant, Schussmeisters Ski Club, Inc., Buffalo, NY — May, 2013 - April, 2015
- Synthesized business needs and developed fully integrated data management application to provide business organization and analytics capable of informing board members for data-driven decisions
- Developed and implemented club website servicing over 1,200 members

Undergraduate Researcher, University of Illinois Urbana-Champaign — June, 2014 - August 2014
- Researched techniques for using Hadoop to automatically parallelize scientific codes and implemented scalable parallel atmospheric science simulation.

Relevant Course work

Foundations of Graphical Models	Introduction to Databases	Machine Learning	Probability Theory
Algorithm Analysis & Design	Numerical Analysis I & II	Data Structures	Data-Oriented Computing
Foundations of Applied Math	Statistical Analysis	Regression Analysis	Analysis of Variance

Selected Honors & Awards

NSF IGERT "Data to Solutions" Fellowship — August, 2015
Outstanding Senior Award, Mathematics — May, 2015
1st Place - ACM Student Research Competition Grand Finals — May, 2015
NSF "Data-Intensive Computing" Fellowship — August, 2014
2nd Place - NASA Europa International Software Competition — June, 2014
Phi Beta Kappa — February, 2014