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SHOSHANA (BLUMA) GELLEY

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EDUCATION

PhD, Computer Science	**New York University**	**Expected May 2015**
MS, Computer Science	**Polytechnic Institute of NYU**	**2012**
BS, Computer Science, summa cum laude	**Touro College**	**2010**

WORK EXPERIENCE

Yahoo Labs, Haifa, Israel   **Intern Scientist**   **July – October 2014**

- Collaborated with 5 other team members to determine how a site policy change impacted user engagement.
- Used R, Python, and Unix scripting/awk/sed to build a data pipeline to transform raw data for analysis.
- Analyzed Yahoo! Answers usage data using R, created exploratory graphs, and conducted statistical tests.
- Participated in planning meetings for various projects using A/B testing (bucket testing).
- Presented results to ~30 scientists at Yahoo Labs; submitted paper for publication in a leading conference.
- Completed internship remotely and collaborated on writing paper using effective communication and tools such as ShareLatex and git.

Avaya Labs, Basking Ridge, NJ   **Research Scientist Intern**   **May – November 2013**

- Created a robust, multithreaded, error-resistant crawler in Java (~4K lines of code) to scrape an Ajax-based website with no API (Pinterest).
- Made extensive use of Unix commands and scripts (including screen) to manage scarce server resources and ensure maximum uptime for the crawler.
- Ran crawler for over a month and collected millions of data points, stored in a graph database (Neo4j).
- Analyzed data using R to reveal insights about user behavior on the site that challenged accepted wisdom.

Touro College, New York, NY   **Computer Science Instructor**   **September 2010 – June 2011**

- Worked within an existing curriculum to create innovative and engaging classes.
- Course materials developed are being used to help instructors currently teaching the course.

CRA Distributed Research Experience for Undergraduates, New York, NY   **Research Intern**   **June – August 2009**

- Worked together with Dr. Haimonti Dutta of Columbia University to explore novel methods for predicting epileptic seizures.
- Used Java and Weka's API to build and train SVM predictors on EEG data.
- Concluded that the combination of SVMs and Granger Causality showed promise for seizure prediction.

RESEARCH PROJECTS

Detecting Notability on Wikipedia   **December 2014 – present**

Using machine learning to determine whether new articles fit Wikipedia's inclusion guidelines; funded by the Wikimedia Foundation.

- Choosing and extracting features; analyzing and visualizing data for feature selection using R with Shiny.
- Building machine learning predictors in Python with scikit-learn.
- Interfacing with the Wikipedia community throughout the planning and implementation process to solicit and respond to comments, suggestions, and functionality requests.

Wikipedia Articles for Creation (AfC) Process   **March – November 2014**

Long-distance collaboration with other researchers to study the impact of Wikipedia's AfC process.

- Used MySql to write and optimize queries over tables with tens of millions of rows and determine the impact of user characteristics on the success of their articles.

Predicting Deletion on Wikipedia   **September 2011—April 2013**

Using machine learning to predict whether or not Wikipedia articles will be deleted.

- Designed a process for collecting difficult-to-gather data using Python and web crawling.
- Cleaned data and extracted features using natural language processing, web APIs, and text processing.
- Built a classifier that predicted with high accuracy whether an article would be deleted.

TECHNICAL SKILLS

- Java, Python, R, SQL, VB.NET/ASP.NET.
- Statistical analysis, hypothesis testing, Machine Learning, Natural Language Processing, scikit-learn, Weka, NLTK.
- Data presentation in R: ggplot2, Shiny.
- Unix/Linux (shell scripting, sed, awk).
- Web scraping and crawling; data gathering, cleaning, and munging.
- Graph databases: neo4j, neo4j-Cypher; RDBMS: MySql, SQLServer.
- Git, subversion.
- Excel: formulas, pivot tables, charting, VBA.
- Familiar with MapReduce paradigms and the Hadoop ecosystem.

ADDITIONAL RESEARCH EXPERIENCE

- Research interests: Data Mining, Social Computing/HCI, and Social Network Analysis.
- Thesis topic: mining data from online social networks and peer-production communities to understand user interaction, then building tools to support user decision-making.
- Worked with NYU Proteus (NLP) group on temporal information extraction in Java.   **2010-2011**

ADDITIONAL WORK EXPERIENCE

Web Development Intern, Saw You at Sinai online dating service, NY, NY.   **March – August 2009**
  - Developed functionality for new area of website in ASP.NET/VB.NET.

Database Intern, New York Jewish Herald, Brooklyn, NY.   **July - August 2008**
  - Created advertiser database in Microsoft Access with extensive built-in VBA code.

Math and Science Teacher, 8th grade, Beth Jacob of Gur.   **Sep 2007— June 2008**

PUBLICATIONS

Do I need to follow you? Examining the Utility of the Pinterest Follow Mechanism. **Bluma Gelley** and Ajita John. 2015. To appear in Proceedings of CSCW 2015.

What, Where, and When: Geotemporal Text Search in Twitter. Sergey Nepomnyachiy, **Bluma Gelley**, Wei Jiang, and Tehila Minkus. In Proceedings of GIR 2014.

Accept, decline, postpone: How Newcomer Productivity is Reduced in English Wikipedia by Pre-publication Review. Jodi Schneider, **Bluma Gelley**, and Aaron Halfaker. In Proceedings of OpenSym 2014.

Automated Decision Support for Human Tasks in a Collaborative System: The Case of Deletion in Wikipedia. **Bluma Gelley** and Torsten Suel. In Proceedings of WikiSym 2013.

AWARDS AND PROFESSIONAL ACTIVITIES

Panelist, Girls Talk Tech, Google Anita Borg women in CS event.	**January 2015**
Individual Engagement Grant, Wikimedia Foundation.	**December 2014 – June 2015**
Graduate Assistantships in Areas of National Need Fellowship.	**2009 – 2012**
Presidential Academic Scholarship (Full), Touro College.	**2006 – 2009**
Award for Exemplary Service, Dedication and Leadership, Touro College.	**2009**

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