

## George Brova

---

CONTACT INFORMATION	Siebel Center for Computer Science 201 North Goodwin Avenue Urbana, IL 61801, USA	Phone: +1-617-383-9607 E-mail: brova2@illinois.edu WWW: web.engr.illinois.edu/~brova2
OBJECTIVE	Seeking a full-time software engineering position with emphasis on data mining and machine learning.	
TECHNICAL SKILLS	<ul style="list-style-type: none"><li>• <b>Languages:</b> Java, C, C++, Matlab, Python, MySQL, DB2, PHP, JavaScript, Haskell</li><li>• <b>Large data frameworks:</b> Hadoop, Flume</li><li>• <b>Operating Systems:</b> Linux, Mac OS X, Windows</li><li>• <b>Interests:</b> Data Mining, Machine Learning, Heterogeneous Information Networks, Graph Theory, Artificial Intelligence.</li></ul>	
EDUCATION	<b>University of Illinois at Urbana-Champaign</b> , Urbana, IL Ph.D. in Computer Science Area of study: Data Mining Advisor: Prof. Jiawei Han	Sep. 2012 - May 2017
	<b>Boston University</b> , Boston, MA B.A./M.A. in Computer Science, <i>Summa Cum Laude</i> . GPA: 3.95/4.00 in Computer Science, 3.85/4.00 overall Trustee Scholar (recipient of a merit-based, four-year, full tuition scholarship)	Sep. 2008 - May 2012
INDUSTRY EXPERIENCE	<b>Software Engineering Intern</b> , Google <ul style="list-style-type: none"><li>• Built and evaluated a classification system to help solve a (non-public) internal task.</li><li>• The application required high interpretability. The models generated by my framework are more interpretable than all baselines, without a loss in performance.</li></ul>	May. 2014 – Aug. 2014
	<b>Software Engineering Intern</b> , American Express <ul style="list-style-type: none"><li>• Explored strategies for recommending merchants to cardholders.</li><li>• Ongoing work on recommending merchants away from a user's home city</li></ul>	Jun. 2013 – Aug. 2013
	<b>Software Engineering Intern</b> , Groupon <ul style="list-style-type: none"><li>• Improved the algorithm that personalizes deal recommendations for users by using a more accurate estimate for the price of each deal.</li><li>• Ran an A/B test validating the new method. Observed a 3.3% increase in revenue, with high statistical confidence.</li><li>• Wrote new code for the recommendation engine in Java, and analysis tools in Hadoop.</li></ul>	Jun. 2012 – Aug. 2012
	<b>Financial Software Developer Intern</b> , Bloomberg L.P. <ul style="list-style-type: none"><li>• Redesigned the Fair Value Detail function on the Bloomberg terminal, which computes and compares the fair values of futures contracts.</li><li>• This function is used by financial professionals over 2,000 times daily.</li><li>• Wrote the backend functionality in C++ and the user interface in Javascript.</li></ul>	May 2011 – Aug. 2011
	<b>Financial Software Developer Intern</b> , Bloomberg L.P. <ul style="list-style-type: none"><li>• Designed and built an analysis tool for Bloomberg Tradebook's Pair Trading algorithm.</li></ul>	May 2010 – Aug. 2010

RESEARCH  
EXPERIENCE

**Research Assistant**, University of Illinois Aug. 2012 – present

- Studying the spread of information in heterogeneous information networks.

**Research Assistant (Authority Influence)**, Boston University Sep. 2010 – May 2011

- Defined a model to discern between and quantify the strength of influence exerted by peer and authority relationships in a social network, and applied the model to two real-world datasets to extract meaningful conclusions about the underlying social processes.

**Research Assistant (Query by Humming)**, Boston University May 2009 – May 2010

- Designed and implemented an efficient and accurate query-by-humming system in C++

PUBLICATIONS

- Honglei Zhuang, Jing Zhang, **George Brova**, Jie Tang, Hasan Cam, Xifeng Yan, Jiawei Han: *“Mining Query-Based Subnetwork Outliers in Heterogeneous Information Networks”*, ICDM 2014.
- Huan Gui, Yizhou Sun, Jiawei Han, **George Brova**: *“Modeling Topic Diffusion in Multi-Relational Bibliographic Information Networks”*, CIKM 2014.
- Fangbo Tao, **George Brova**, Jiawei Han, Heng Ji, Chi Wang, Brandon Norick, Ahmed El-Kishky, Jialu Liu, Xiang Ren, Yizhou Sun: *“NewsNetExplorer: automatic construction and exploration of news information networks”*, SIGMOD Conference 2014.
- Fangbo Tao, Xiao Yu, Kin Hou Lei, **George Brova**, Xiao Cheng, Jiawei Han, Rucha Kanade, Yizhou Sun, Chi Wang, Lidan Wang, Tim Weninger: *“Research-insight: providing insight on research by publication network analysis”*, SIGMOD Conference 2013.
- Aris Anagnostopoulos, **George Brova**, Evimaria Terzi: *“Peer and authority pressure in information-propagation models”*, Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD) 2011.

TEACHING

- Teaching Assistant for CS411: Databases, Fall 2014
- Teaching Assistant for CS412: Data Mining, Fall 2013

HONORS AND  
AWARDS

- Honorable mention, Computing Research Association Outstanding Undergraduate Researcher Award, a nationwide competition (2011)
- UROP Travel Award to present paper at the ECML-PKDD conference (2011)
- UROP funding for work on query-by-humming system (2009-2010)