

Natali Ruchansky

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RESEARCH INTERESTS	<p>My interest surround data mining and machine learning from matrix, tensor, and network data. In particular, I focus on tackling challenges that arise with real-world messy data, such as missing information, noise, and lack of structure. My work has application across a wide range of areas including recommender systems, biology, neuroscience, social networks, urban informatics, and misinformation.</p>
EDUCATION	<p>University of Southern California. Los Angeles, CA Postdoc in Computer Science Department, Current Advisor: Yan Liu.</p> <p>Boston University. Boston, MA Ph.D. in Computer Science, 2011-2016 Thesis: Matrix Completion with Structure. Advisors: Evimaria Terzi and Mark Crovella.</p> <p>Boston University. Boston, MA B.S., Mathematics and Computer Science, 2008-2011 <i>Magna Cum Laude</i></p>
RESEARCH EXPERIENCE	<p>Research Intern May-August 2014 Yahoo! Labs, Barcelona, Supervisor: Francesco Bonchi</p> <p>Research Assistant September 2011 - 2016 Data Management Group, Boston University. Supervisors: Evimaria Terzi, and Mark Crovella</p> <p>Research Intern May-August 2010 Center for Embedded Networked Sensing (CENS), UCLA, University of California Los Angeles Supervisors: Nabil Hajj Chehade, Greg Pottie.</p> <p>Research Intern January-May 2010 Security Group, Boston University. Supervisors: Leo Reyzin.</p> <p>Research Assistant 2005-2009 DeCaprio Medical Oncology Lab, Dana Farber Cancer Institute Supervisors: Larisa Litovchick.</p>

REFEREED
CONFERENCE
PUBLICATIONS

1. **N.Ruchansky**, F.Bonchi, D.Garcia-Soriano, F.Gullo, and N.Kourtellis.
"To Be Connected, or Not to Be Connected: That is the Minimum Inefficiency Subgraph Problem."
To appear: CIKM 2017. Singapore.
2. **N.Ruchansky**, S.Seo, and Y.Liu.
"CSI: A Hybrid Deep Model for Fake News "
To appear: CIKM 2017. Singapore.
3. **N.Ruchansky**, M.Crovella, and E.Terzi.
"Targeted Matrix Completion"
SDM 2017. Houston, Texas.
4. **N.Ruchansky** *"Matrix Completion with Structure."* Doctoral Thesis, 2016.
5. **N.Ruchansky**, M.Crovella, and E.Terzi.
"Matrix Completion with Queries"
KDD 2015. Sydney, Australia.
6. **N.Ruchansky**, F.Bonchi, D.Garcia-Soriano, F.Gullo, and N.Kourtellis.
"The Minimum Wiener Connector"
SIGMOD 2015. Melbourne, Australia.
7. **N.Ruchansky** and D.Proserpio.
"A (Not) NICE way to verify the OpenFlow Switch Specification"
SIGCOMM 2013 (Poster). Hong Kong, China.
8. G.Gursun, **N.Ruchansky**, E.Terzi and M.Crovella
"Routing State Distance: A Path-based Metric for Network Analysis. "
IMC 2012. Boston, USA.
2013 Applied Networking Research Prize, awarded by the IETF and IRTF.
9. G.Gursun, **N.Ruchansky**, E.Terzi and M.Crovella
"Inferring Visibility: Who's (not) Talking to Whom? "
SIGCOMM 2012. Helsinki, Finland. and TinyToCS Vol 1
10. **N.Ruchansky**, E.Do, C.Lochner, T.Rawls, N.Chehade, J.Chien, G.Pottie, W.Kaiser.
"Monitoring Workspace Activities Using Accelerometers. "
ICASSP 2011. Prague, Czech Republic.

WORK
EXPERIENCE

Zigelbaum + Coelho LLC May-August 2011
Development and design intern. (Now [Marcelo Coelho Studio](#) and [Jamie Zigelbaum](#)).

Grader Fall 2010, Spring/Fall 2011
Computer Science, Boston University.

Cashier/Waitress November 2008-May 2009
Boston University Shelton Hall Late Night.

TEACHING EXPERIENCE	<p>Mentor Fall 2016 Mentor for undergraduate directed study in machine learning.</p> <p>Math Teacher YearUp, Boston. Fall Semester 2011</p> <p>Teaching Assistant Data Mining Fall 2014 Intro to Computer Science Summer I and II 2012 Scratch and CS Development. Fall 2010, Spring 2011 Longfellow Children's Center. January-May 2008</p> <p>Private Tutor Math and Computer Science 2010-2014</p> <p>Guest Lecturer <i>Cracking the Coding Interview</i> workshop series Fall 2015</p>
AWARDS	<p>Scholarly Awards</p> <ul style="list-style-type: none"> • Rising Star in EECS (held at Stanford 2017) • Computer Science GAANN Fellowship 2011-2014 • Transition Limited Consulting Scholarship 2010 • College Scholar (top 5% of the College of Art and Sciences 2011 Class) <p>Travel Awards</p> <ul style="list-style-type: none"> • SIAM-SDM Early-Career 2017 • CRA-W Early Career Workshop 2016 • KDD 2016 • SIGMOD 2015 • ACM-W Scholarship 2011, 2013 • SIGCOMM 2012
LANGUAGES	English, Russian.
SERVICE	<p>Engagement of Girls and Women in CS</p> <ul style="list-style-type: none"> • Project judge for Technovation 2017 • Guest lecturer with the Boston University Artemis Project • Volunteering at events sponsored by DotDiva, WISE, JumpStart <p>Mentoring and Outreach</p> <ul style="list-style-type: none"> • SeniorNet at Boston University • Computer Science representative at fairs and prospective-student events. • Haley House Cafe and Harvard Square Homeless Shelter
ACADEMIC SERVICE	<p>Program Committee</p> <ul style="list-style-type: none"> • WSDM Workflow chair (2018) • CIKM (2017) <p>Reviewer:</p> <ul style="list-style-type: none"> • JMLR, TKDE, SDM, WSDM, ICWSM, ICML (2017) • IJCAI, VLDB, NIPS, ICDM (2016) • WSDM, WWW, KDD (2015)

- SDM, AAAI (2014)
- EDBT, WWW, SIGMOD, ICDM , WSDM (2013)
- PKDD, ICDE, WSDM (2012)

Departmental:

- Organizer of Data Management Seminar
- Founder and Organizer of the Graduate Student Seminar

REFERENCES Available upon request.