ALLISON JUNE BARLOW CHANEY

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213.220.0707

Research Interests Machine learning, Bayesian statistics, computational social science, recommendation systems, text analysis (topic models), interactive and static visualization.

Education

Princeton University

Ph.D., Computer Science   September 2016
  Advisor: David M. Blei
   Dissertation: *Computational Methods for Exploring Human Behavior*
M.A., Computer Science   January 2014
  Coursework: Advanced Methods in Probabilistic Modeling, Artificial Intelligence,
  Interacting with Data, Applied Probabilistic Modeling

Swarthmore College

B.A., Computer Science and B.S., Engineering   2004 – 2008
  Coursework: Adaptive Robotics, Artificial Intelligence, Mobile Robotics

Experience

Postdoctoral Research Associate, Princeton University
  Advisor: Barbara E. Engelhardt   Oct. 2016 – Present

Research Assistant, Princeton University
  Graduate student research; see publications below.   July 2011 – Sept. 2016
  Developed a tool for browsing the output of topic models.   Sept. 2010 – July 2011

Assistant Instructor, Princeton University
  Interacting with Data (COS424)   Spring 2014
    Selected readings, developed and graded assignments, held office hours.
    Material: Graphical models, classification, regression, dimension reduction, sequence
    models and HMMs, expectation maximization, scalable machine learning.

  Introduction to Computer Science (COS126)   Spring 2013
    Taught 4 hours of precept per week, developed exam questions, held office hours.
    Material: Programming in Java; basic encryption, computer architecture, Markov models.

Research Intern, Microsoft Research   Summer 2013
  Explored Nielsen TV panel data for group recommendation.

Research Intern, eBay/Hunch   Summer 2012
  Explored personalized recommendation based on recent user context.

Software Engineer, Yorba Foundation   July 2009 – July 2010
  Worked on Shotwell, an open-source photo organizer and editor.

Technical Director Resident, Pixar Animation Studios   July 2008 – July 2009
  Prepared material from past productions for Disney themepark attractions.

Publications   *Refereed Conference Articles*

A. Chaney, H. Wallach, D. Blei, and M. Connelly. **Detecting and Characterizing Events**. EMNLP, 2016 (Oral presentation).

A. Chaney, D. Blei, and T. Eliassi-Rad. **A Probabilistic Model for Using Social Networks in Personalized Item Recommendation**. RecSys, 2015.

A. Chaney, M. Gartrell, J. Hofman, J. Guiver, N. Koenigstein, P. Kohli, and U. Paquet. **A Large-scale Exploration of Group Viewing Patterns**. TVX, 2014.

A. Chaney and D. Blei. **Visualizing topic models**. International AAAI Conference on Social Media and Weblogs, 2012.

Workshop and Other Papers

A. Chaney, H. Wallach, and D. Blei. **Who, What, When, Where, and Why? A Computational Approach to Understanding Historical Events Using State Department Cables**. Text as Data, 2015 (Oral presentation).

A. Chaney, K. Dinakar, H. Lieberman, and D. Blei. **Real-time Topic Models for Crisis Counseling**. KDD Workshop: Data Science for Social Good, 2014.

A. Chaney, P. Gopalan, and D. Blei. **Poisson Trust Factorization for Incorporating Social Networks into Personalized Item Recommendation**. NIPS Workshop: What Difference Does Personalization Make?, 2013.

A. Chaney, M. Gartrell, J. Hofman, J. Guiver, N. Koenigstein, P. Kohli, and U. Paquet. **Mining Large-scale TV Group Viewing Patterns for Group Recommendation**. Microsoft Tech Report, 2013.

Honors & Awards   **Rising Stars in EECS** (Academic Career Workshop for Women), invited participant, Carnegie Mellon University, 2016.

Honorable Mention Award (best paper runner-up) for *A Large-scale Exploration of Group Viewing Patterns*, TVX, 2014.

Invited Talks   **Cornell University**. Artificial Intelligence Seminar (CS 7790), 2016.

Rutgers University. Computer Science Colloquium, 2015.

Brigham Young University. Computer Science Colloquium, 2015.

Professional Activities

Women in Machine Learning Board Member	January 2016 – Present
Women in Machine Learning Workshop Organizer	2014

Program Chair, in charge of invited and student speakers, and also mentorship program.

Journal Reviewer: Marketing Science (2014–Present); Transactions on Knowledge and Data Engineering (2016); Transactions on Knowledge Discovery from Data (2016); Operations Research (2015); Transactions on Interactive Intelligent Systems (2015)

Conference Reviewer: ICML (2016, 2015); ICWSM (2016, 2015); AISTATS (2016); NIPS (2015)

Workshop Reviewer: WiML (2016 Area Chair, 2014); NIPS Advances in Approximate Bayesian Inference (2015, 2016); NIPS Topic Models (2013); Mid-Atlantic Student Colloquium on Speech, Language and Learning (2011)

Technical Skills	**Operating Systems:** Linux, Mac OS, Windows

Programming Languages: Python, R, C/C++, Bash, SQL, CSS/HTML, Java, Javascript

Misc: LaTeX, Git, SVN, Inkscape, GIMP

Additional Skills   **Languages:** English Fluency, Conversational Spanish

Recent Volunteering

Employment & Education Specialist, LDS Spanish-Speaking Congregation   May 2014 – Present
Teach employment workshops, provide individual career and education counseling. Developed and taught a free nine-session SAT prep class in Summer 2015.

Summer Programming Experiences Mentor, Princeton Computer Science   Summer 2015
Mentored a group of four freshman students through a programming project.

Youth Leader, Princeton LDS English-Speaking Congregation   January 2013 – March 2015
Mentored, taught, tutored, and planned social events for teenage girls.