

# Jeremy C Weiss

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## Education:

**University of Wisconsin**, MD-PhD candidate, Madison WI (2007-Present)

Department: Medicine, Computer Science

Thesis title: Statistical Timeline Analysis for Electronic Health Records, defense April 2014

Primary advisor: C. David Page

Mentors/Committee: Sriraam Natarajan, Mark Craven, Xiaojin Zhu, Deane Mosher

Support: Computation and Informatics in Biology and Medicine T32, Institute for Clinical and Translation Research T32, Medical Scientist Training Program

**University of Pennsylvania**, College of Arts and Sciences, Philadelphia PA (2003-2007)

Major: BA Mathematics, BS Biochemistry, summa cum-laude

Honors: College of Arts and Sciences Dean's List for Academic Excellence (2003-2004, 2005-2006)

**The Lakeside School**, High School, Seattle WA (1999-2003)

## Publications:

**Weiss JC**, Kuusisto F, Boyd K, Liu J, Page D. Machine learning for treatment assignment: improving individualized risk attribution. *American Medical Informatics Association (AMIA) Annual Symposium*. San Francisco, 2015.

Lantz E, **Weiss JC**, Page D, Schmelzer J, Berg R, Yale S, Miller A, Burmester J. Using electronic health records to predict therapeutic warfarin dose. *American Medical Informatics Association Joint Summit on Translational Science*, 2015.

**Weiss JC**, Natarajan S, Page D. Learning to reject sequential importance steps for continuous-time Bayesian networks. *Association for the Advancement of Artificial Intelligence (AAAI)*. Austin, 2015.

**Weiss JC**. Statistical timeline analysis for electronic health records. University of Wisconsin-Madison, 2014. PhD Thesis.

**Weiss JC**, Page D. Forest-based point processes for event prediction from electronic health records. *European Conference on Machine Learning (ECML-PKDD)*, Prague, CZ, 2013.

**Weiss JC**, Natarajan S, Page D. Multiplicative forests for continuous-time processes. *Neural Information Processing Systems (NIPS)*, Lake Tahoe, 2012.

**Weiss JC**, Natarajan S, Peissig P, McCarty C, Page D. Machine learning for personalized medicine: predicting primary myocardial infarction from electronic health records. *AI Magazine*, Winter 2012.

**Weiss JC**, Natarajan S, Peissig P, McCarty C, Page D. Statistical relational learning to predict primary myocardial infarction from electronic health records. *Innovative Applications of Artificial Intelligence (IAAI)*. Toronto, 2012.

Lovasi GS, **Weiss JC**, Hoskins R, Whitsel EA, Rice K, Erickson CF, Psaty BM. Comparing a single-stage geocoding method to a multi-stage geocoding method: how much and where do they disagree. *International Journal of Health Geographics*. 2007, 16;6:12

## Presentations and Committees:

**Weiss JC**, Larson E. La Crosse, WI: Deep Roots Community Farm. UWSMPH medical education day. Madison, 2015. (Top project)

Updated 11/17/2015

**Weiss JC**, Childers S. Spatial statistics to evaluate player contribution in ultimate. *Sloan Sports Analytics Conference*. Cambridge, 2014.

**Weiss JC**, Childers S. Maps for reasoning in ultimate. Accepted to the *ECML Workshop on Sports Analytics*. Prague, CZ, 2013.

**Weiss JC**, Natarajan S, Page D. Learning when to reject an importance sample. *AAAI Conference Late Breaking Papers*, Bellevue, 2013.

**Weiss JC**. Timeline analysis for predicting clinical events from electronic health records. *National Library of Medicine Informatics Training Conference*. Salt Lake City, 2013. **(Best talk award)**

**Weiss JC**, Natarajan S, Peissig P, McCarty C, and Page D. Tree structures for continuous-time Bayesian networks: a scalable representation for medical diagnosis prediction. *MathBio3:Modeling Symposium*. Madison, 2011.

**Weiss JC**, Berg B, Peissig P, McCarty C, Page D. Clustering from overly-specific features to improve rule-based prediction. *Neural Information Processing System (NIPS) Conference 2010 Workshop on Predictive Models In Personalized Medicine*, Vancouver, 2010.

Program Committee/Reviewer for International Joint Conference on Artificial Intelligence (2013, 2016), American Medical Informatics Association Joint Summit (2015), Journal of Machine Learning Research (2015), Association for the Advancement of Artificial Intelligence (2015), International Journal of Epidemiology (2014), Journal of Artificial Intelligence Research (2013, 2014), Inductive Logic Programming (2014), Uncertainty in Artificial Intelligence (2013).

### **Occupational/Research Experience:**

**Research assistant**, University of Wisconsin, David Page (Summer 2007), warfarin dosage prediction meta-analysis  
**Independent study**, University of Pennsylvania, Junhyong Kim (2006-2007), yeast genomic time-series expression  
**Research assistant**, University of Washington, Bruce Psaty and Thomas Lumley (Summer 2006), GWAS design  
**Independent Study**, University of Pennsylvania, Ravi Radhakrishnan (2005), IP3R activation/calcium flux models  
**Research assistant**, University of Washington, Bruce Psaty (Summer 2005), geocoding of cardiovascular risk  
**Research assistant**, University of Pennsylvania, Rachel Croson (Summer 2004), marketing psychology  
**Research assistant**, FHCRC, Linda Voigt (Summer 2002), error correction for smoking-induced cancers

### **Activities:**

**American Ultimate Disc League, Madison Radicals** (2013-present), broadcast announcer  
**Ultiworld.com online magazine** (2012-present), statistics writer and editor  
**Ultimate Frisbee Club** (2012-2014), Mad Men, captain; (2005-2007) University of Pennsylvania Void  
**Greater University Tutoring Service** (2012-2013), {biochemistry, chemistry, math, physics, game theory} tutor  
**Artificial Intelligence Reading Group** (2009-2013), head coordinator, webmaster  
**3-Day Startup** (2012, 2014), participant, online ride-sharing  
**Neuroscience Interest Group** (2007-2009)  
**Public Health Interest Group** (2007-2009)  
**Robotics Club** (2007-2009), stereo vision programmer  
**Penn Chess Club** (2004-2007), president, webmaster  
**Penn Poker Project** (2003-2007), programmer/developer  
**Evolutionary Programming Project** (2005-2007), programmer/developer

### **Other Interests:**

Molecular diagnostics, ultimate strategy, music composition, video production, contemporary art, chess