Russell S. Horton

Curriculum Vitae

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**EDUCATION**

2010-2012 University of California San Diego, San Diego, California

Masters of Arts in Linguistics

Comprehensive paper: *A machine learning approach to the rhythmic classification of languages*

Advisor: Roger Levy

1998-2002 University of Chicago, Chicago, Illinois

Bachelors of Arts in Linguistics

**PROFESSIONAL EXPERIENCE**

2014-Present EcoHealth Alliance

*Senior Data Scientist*

2008-2014 Reverb Technologies, Inc.

*Computational Linguist*

1999-2009 The ARTFL Project, The University of Chicago

*Programmer Analyst*

**SOFTWARE PROJECTS**

2015-Present Mantle Prototype, EcoHealth Alliance

*An application for Ranavirus researchers to collaborate and share data, as a prototype of an open source platform for biosurveillance researchers across One Health disciplines.*

2014-Present Global Rapid Identification Tool System, EcoHealth Alliance

*A biosurveillance application that enables infectious disease analysts to monitor non-traditional information sources for infectious disease threats.*

2011-2014 Reverb iOS App, Reverb Technologies, Inc.

*An iPad and iPhone app to provide customized news and entertainment feeds. Worked on entity identification, personalization and recommendation.*

2008-2014 Wordnik.com, Wordnik

*Online dictionary incorporating citations and definitions from a wide variety of sources. Worked on automatically identifying illustrative example sentences for words, corpus acquisition, distributional semantics.*

2013-2013 Purchase order tool, Dr Jays

*Maintained and enhanced purchase order creation tool with Angular front-end and Node.js back end.*

1999-2008 Philologic, The ARTFL Project

*Full-text search and retrieval engine providing web interface for online editions of literature, encyclopedias and other scholarly resources. Worked on search indexing, NLP, interface development, online editions, foreign language support.*

2007-2008 Philomine, The ARTFL Project

*Machine learning interface to the Philologic text search engine. Created a web-based interface for defining, running and analyzing machine learning jobs on scholarly texts.*

2005-2007 Kanji Alive, The ARTFL Project

*Web-based Japanese language learning tool. Worked on backend API server, data imports and storage.*

2001-2002 Virtual Tour Kiosk, University of Chicago Admissions

*Kiosk computer with virtual tour of campus. Took panoramic photographs, built QuickTime interactive panoramas, integrated into touch-screen kiosk site.*

**PEER REVIEWED PUBLICATIONS**

Horton, R., Olsen, M., & Roe, G. (2010). Something Borrowed: Sequence Alignment and the Identification of Similar Passages in Large Text Collections. *Digital Studies / Le Champ numérique* Vol 2, No 1, 2010.

Allen, T., Douard, S., Cooney, C., Horton, R., Morrissey, R., Olsen, M., Roe, G., & Voyer, R. (2010) Plundering Philosophers: Identifying Sources of the Encyclopédie", *Journal of the Association for History and Computing*, vol. 13, no. 1, Spring 2010.

Argamon, S., Cooney, C., Horton, R., Olsen, M., & Stein, S. (2009) Gender, Race, and Nationality in Black Drama, 1850-2000: Mining Differences in Language Use in Authors and their Characters. *Digital Humanities Quarterly*, Spring 2009, Volume 3, Number 2.

Argamon, S., Goulain, J., Horton, R., & Olsen, M. (2009) Vive la Différence! Text Mining Gender Difference in French Literature. *Digital Humanities Quarterly*, Spring 2009, Volume 3, Number 2.

Horton, R., Morrissey, R., Olsen, M., Roe, G., & Voyer, R. (2009) Mining Eighteenth Century Ontologies: Machine Learning and Knowledge Classification in the Encyclopédie. *Digital Humanities Quarterly*, Spring 2009, Volume 3, Number 2.

**PRESENTATIONS**

Huff, A. G., Slagle, A., Horton, R., Breit, N, & Gold, Z. (2015, March). *Global Rapid Identification Tool Set (GRITS).* DDD3: Florence, Italy.

Horton, R. (2011) *'Ever since nineteen, had a perfect rhyme scheme': A corpus study of English rap rhyme.* Networks and Network Analysis for the Humanities: Reunion Conference, The University of California at Los Angeles, Oct 20 - 22 2011.

Henderson, L. & Horton, R. (2010) *Sequence Alignment and Similarity in Biology and the Humanities.* Digitial Humanities and Computer Science 2010, Northwestern University, November 20th 2010

Horton, R., Olsen, M. (2009) *Sequence Alignment, Shared Services, and Digital Humanities*. Project Bamboo Workshop, Tucson, Arizona, January 2009

Horton, R., Olsen, M., & Roe, G. (2009) *PAIR: Pairwise Alignment for Intertextual Relations*. Annual Meeting of the Society for Digital Humanities -- Société pour l'étude des médias interactifs - Carleton University, Ottawa, May 25-27, 2009

Horton, R., Morrissey, R. (2008) *The ARTFL Project: From words to works.* The Dilemmas of Digitization, Oxford University, May 22-24, 2008.

Cooney, C., Horton, R., Olsen, M., Roe, G., Voyer, R. (2008) *Deconstructing Machine Learning: A Challenge for Digital Humanities.* Digital Humanities 2008, University of Oulu, Oulu, Finland, June 25-29, 2008

Cooney, C., Horton, R., Olsen, M., Roe, G. & Voyer, R. (2008) *PhiloMine: An Integrated Environment for Humanities Text Mining.* Digital Humanities 2008, University of Oulu, Oulu, Finland, June 25-29, 2008

Cooney, C., Olsen, M., Roe, G., & Voyer, R. (2008) *Hidden Roads and Twisted Paths: Intertextual Discovery using Clusters, Classifications, and Similarities.* Digital Humanities 2008, University of Oulu, Oulu, Finland, June 25-29, 2008

Cooney, C., Horton, R., Olsen, M., M., Roe, G., & Voyer, R. (2008) *Feature Creep: Evaluating Feature Sets for Text Mining Literary Corpora*. Digital Humanities 2008, University of Oulu, Oulu, Finland, June 25-29, 2008

Cooney, C., Horton, R., Morrissey, R., Olsen, M., Roe, G., Voyer, R (2008) *Re-engineering the tree of knowledge: Vector space analysis and centroid-based clustering in the Encyclopédie*. Digital Humanities 2008, University of Oulu, Oulu, Finland, June 25-29, 2008

Argamon, S., Horton, R., Olsen, M., & Stein, S.(2007) *Gender, Race, and Nationality in Black Drama, 1850-2000: Mining Differences in Language Use in Authors and their Characters.* Digital Humanities 2007, University of Illinois, June 2007

Argamon, S., Goulain, J., Horton, R., Olsen, M. (2007) *Discourse, power and écriture féminine: Text mining gender difference in 18th and 19th century French literature.* Digital Humanities 2007, University of Illinois, June 2007

Horton, R., Morrissey, R., Olsen, M., Roe, G. & Voyer, R. (2007) *Mining Eighteenth Century Ontologies: Machine Learning and Knowledge Classification in the Encyclopédie.* Digital Humanities 2007, University of Illinois, June 2007

Cooney, C., Horton, R., Olsen, M., Roe, G., Voyer, R. (2007) *Extending PhiloLogic*. Digital Humanities 2007, University of Illinois, June 2007

**PATENTS**

Horton, R., Mckean, E., Allen, T. *Data Mining for Free Range Definitions*. Pending, United States WORD 1000-1, filed February 3, 2011, Technique for data mining sentences that best illustrate the meaning of candidate words.

**SERVICE**

2014 Reviewer for the *Journal of American Folklore*

2012 Reviewer for *Literary and Linguistic Computing*