CV — Joshua Bowles

Contact Information

Company One On One Marketing

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Github jbowles-Github

Bitbucket jbowles-Bitbucket

Technical Blog jbowles-lambda

Overall Experience

Since 2007 Research in mathematical, biological, documentary, and computational linguis-

tics.

Since 2010 Research and software development in business.

Since 2013 Research in various machine learning techniques.

Current/Future Familiarizing myself with tools using large data sets and machine learning

techniques for text processing; deliver near real-time results for large data analysis (for example, Go and Ruby web apps with complex and accurate text classification for near real-time twitter stream); experiment with different distributed system architectures; experiment with different concurrency models (via Scala, Ruby, Clojure, Go) and the kinds of data problems suited to them.

Employment

2010 – present **Software Developer and Researcher**, One On One Marketing

Internet Marketing Company, Lehi, UT,

Develop and maintain in-house products as well as lead-gen transaction and validation system with Ruby and Rails; Maintain production transaction system in Ruby and co-ordinate with Business Intelligence; Technical lead on rearchitecting, writing, and delivering production release of new distribution system uisng Ruby and Nodejs; Co-architect of new transaction system in Ruby

and in the process of porting it to Go on personal time.

2008 – 2010 Adjunct Lecturer, Department of English

Utah Valley University, Orem, UT.

Research techniques, informal logic, and pragmatics relevant to science compo-

sition.

2009, July – Nov Computational Linguist (Intern), Attensity Corporation

U.S. Technology Center, Salt Lake City, UT.

Knowledge engineering; named entity recognition; compiling and judging corpora of lexical items designed to fit within specific ontologies; some work on developing methods for introducing fixed phrases and idioms into the lexicon.

Consulting Work

2013, 9 months Utah, USA. Contextual classification of (non)standard unicode text in social

media.

2007, 4 months Northern Rio Negro, Brazil. Endangered Language Preservation Techniques

with FOIRN (Federação das Organizações Indigenas do Rio Negro).

2004, 4 months Colorado, USA. Afghani Poshtun sources for language instruction in English

and Poshtun.

Education

Present PhD on hold.

Personal work in Computational Linguistics, Machine Learning, and Computer

Science

2006–2008 University of Utah

M.A., Theoretical Linguistics Thesis: *Agreement in Tuyuca* Advisor: Lyle Campbell

2000–2006 Metropolitan State University of Denver

B.A., English

(minor in Linguistics; completed 24 credit hours in Philosophy)

Honours Thesis: Dislocated Poetics: Language, Biology, Brain, and Literature

Advisor: Paul Farkas

Open Source - Personal

Go - current focus Rivet: Natural Language Processing tools

Ruby - on hold Ruth: Stream, encrypt, and parse application logs using Distributed Ruby. This

will be pulled out to 3 separate projects in the future.

Ruby - on hold Taml Hub: Experimenting with twitter stream, text classification, sentiment

analysis, and Hadoop.

Clojure - on hold Entropy: Using MaxEnt models from Java's OpenNLP to experiment with

parsing unstructured text from application log files.

Open Source - Contributed

Ruby Ellington: Simple state-machine inspired architecture for streamlining trans-

actional processing. Significant role in designing and making architectural decisions; product of redesigning transaction system at current job.

Ruby Grand: Extract-Transform-Load MySQL tables to csv. Helped with require-

ments, architecting, and production implementation.

Ruby Goldmine: MapReduce type functionality using Ruby. Early adopter and

tester.

Programming Languages

Most Experience Ruby (1.8x, 1.9.x, 2.x), Go (1.x)

Favorites Ruby, Go, Lisp

Actively Learning Go, Nodejs, Clojure, Scala, Church

(in order of emphasis)

Research

General Computational and Theoretical Linguistics, Software Development

Linguistic Evidentiality, Idioms & Polysemy, Modality, Tense, Context

Other Logic, Probability, Algebra, Artificial Intelligence, Machine Learning

Projects on Hold Polysemy and Context: What is Computational Semantics Good For?

Recursion in Language

Symmetry in X-bar Structure: Graphs and Algebraic Groups in Linguistic Theory

Syntax and Pragmatics of Evidentiality in English Corpus of English Evidentiality Data (CEED)

Storage & Transport Technologies

Most Experience MySQL, PostgreSQL

Actively Learning Kafka, Doozer, Storm, Hadoop (and ecosystem)

Limited MongoDB, Redis, Oracle, Hadoop

Interests Riak, Neo4j

Other Random Technologies

Markup MEX, HTML, MarkDown

Languages SQL, PLSQL, Prolog

Tools Emacs, Vim, Oracle Application Express, JIRA, Virtual Box

OS Linux (Ubuntu, Fedora, Arch, CentOS), Mac OSX, Windows

Natural Languages

English (native), Spanish (basic speaking and reading), Portuguese (basic reading, beginning speaking), German and Old English (1 year formal study each), Tuyuca and Desano (structural and research knowledge), Afghani Poshto (academic knowledge), General knowledge of many different natural languages

and their properties.

Field Work

2007, 4 months Sao Gabriel da Cachoeria and Camanaus, Brazil. Work on all grammatical

aspects of Desano and limited work on Cubeo; Tukanoan family.

2004, 1 month Denver, Colorado, USA. Limited work on phonology of Afghani Poshto; Indo-

Iranian family.

Academic Grants

2007 Endangered Language Fund (Co-PI) — \$3,500

2007 International Field Work Travel Funds, University of Utah — \$300

Publications

The morphosyntax of tense-evidentials: An initial model. LSO Working Papers

in Linguistics: Proceedings of the 6th Workshop in General Linguistics, Volume 8.

University of Wisconsin-Madison.

2009 The Eastern Tukanoan languages and the typology of classifiers. *Proceedings of*

the 33rd Annual Meeting of the Berkeley Linguistics Society. (Wilson Silva and

Joshua Bowles)

2009 Review of Heck (2008), On pied-piping: Wh-movement and beyond (Mouton de

Gruyter). LinguistList.

2008 Some questions about determining causal inference and criteria for evidence:

Response to Ladd, Dediu, and Kinsella (2008). Biolinguistics 2.2-3: 247-255.

2007 Review of Niyogi (2006), The computational nature of language learning and

evolution (MIT Press). Word 57.2: 178-183. (pre-published version here)

submitted Notice of Booij (2007), The grammar of words (Oxford University Press). eLan-

guage.

Notice of Schäfer (2008), *The syntax of (anti-)causatives: External arguments in change-of-state contexts* (Amsterdam: John Benjamins). eLanguage.

Language families. *Encyclopedia of Native American History* ed. by Peter C.Mancall, New York: Facts on File. (see submitted draft here)

Linguistic areas. *Encyclopedia of Native American History* ed. by Peter C. Mancall. New York: Facts on File. (see submitted draft here)

Talks & Conferences

2008 Evidentials, Agreement, and Tuyuca: Initial Hypotheses. *Linguistics Department Student Conference* 7, University of Utah, April 10.

Evidentiality and Agreement Interactions in Tuyuca: A Generative Approach. *Workshop in General Linguistics* 6, University of Wisconsin-Madison, April 4-5.

Agreement and Tense-Evidentiality Morphs in Tuyuca. *Workshop on Structure and Constituency in the Languages of the Americas* 13, Queens University, Ontario, Canada, March 28-30 (unable to attend).

The "Language of Observation" in Linguistics (Informal Presentation). University of Utah Linguistics Reading Group, February 15.

Neural correlates of Grammatical Gender: Functionalist and Formalist Assump-

tions (Informal Presentation). University of Utah Linguistics Reading Group,

October 15.

Classifiers and Typology in Eastern Tukanoan Languages. *7th Biennial Meeting of the Association for Linguistic Typology*, Paris, France, September 25-28. (Wilson Silva and Joshua Bowles)

2007

Formalism and Functionalism in Language Documentation. *Department of Foreign Languages and Literatures*, Universidade Federal do Amazonas, Brazil, June 10.

The Amazonian Languages Research and Documentation Group. Poster. *3rd Annual Conference on Endangered Languages and Cultures of the Native Americas*, University of Utah, April 13-15. (Wilson Silva and Joshua Bowles)

The Eastern Tukanoan Languages and the Typology of Classifiers. *33rd Annual Berkeley Linguistics Society Conference*, University of Berkeley, California, February 9-11. (Wilson Silva and Joshua Bowles)

A Typology of Nominal Classifiers in the Eastern Tukanoan Languages. *Department of Linguistics Speakers Series*, University of Utah, January 24. (Wilson Silva and Joshua Bowles)

Neurobiology, Poetry, and Dislocation. *English Faculty Colloquium*, Metropolitan State College of Denver, Colorado, April 25. (Paul Farkas and Joshua Bowles)

2002 Philosophy of Language, the Dialectic Method, and James Joyce. *Honors Regional Conference*, University of Colorado, Boulder, March 24-25.

Teaching

2010/2008 Science & Technology Writing and Research ENG 2020, Undergraduate

Utah Valley University (9 courses total)

Summer 2009 Humanities & Social Science Writing and Research ENG 2010, Undergraduate

Utah Valley University

Introduction to Composition ENG 1010, Undergraduate

Utah Valley University

Spring 2008/2007 Teaching Assistant, Introduction to Language LING 1200, Undergraduate

University of Utah, David Iannucci (1 semester), Mauricio Mixco (2 semesters)

Fall 2006 Teaching Assistant, Cross-cultural Communication LING 3600, Undergraduate

University of Utah, Stephen Sternfeld

Academic Services

2007-2008 Volunteer work for Conference on Endangered Languages and Cultures of the

North Americas, University of Utah.

2007 Attended by invitation with Wilson Silva the 20th Anniversary Meeting of

FOIRN (Federação das Organizações Indigenas do Rio Negro) Taracua, Brazil:

June 25-29.

2006 Co-founding member of research group: Amazonian Languages Research and

Documentation, Center for American Indian Languages, University of Utah.

2003 Lead student organizer and introductory comments for "Noam Chomsky: Live at

the Auraria Campus," Presented by MSCD Student Activities, Denver, Colorado,

April 04.