

# GARRETT NICOLAI

8210, 111 St-2408, Edmonton, AB, T6G 2C7 | (780)705-1406 | [nicolai@ualberta.ca](mailto:nicolai@ualberta.ca) | <https://webdocs.cs.ualberta.ca/~nicolai/>

## EDUCATION

University of Alberta

**Ph.D in Computing Science**

**2012-present**

Concentration on morphological and phonological problems, and the application of machine learning to their solution. Dissertation to come.

Supervisor: Grzegorz Kondrak

Course GPA: 3.9 / 4.0

Dalhousie University

**B.A in Linguistics**

**2012**

Graduated with distinction.

University of Regina

**M.Sc in Computer Science**

**2008**

Thesis: "Evolutionary Methods for Learning No-Limit Texas Hold'em Poker."

Supervisor: Robert Hilderman

University of Regina

**B.Sc in Computer Science**

**2006**

Minor in English

Graduated with distinction.

## AWARDS

NSERC Alexander Graham Bell Doctoral Scholarship

2014 – 2016

University of Alberta President's Doctoral Prize of Distinction

2013 – 2016

Alberta Innovates NSERC Top-up

2013 – 2016

NSERC Postgraduate Scholarship

2013 – 2014

University of Alberta Doctoral Recruitment Scholarship

2012 – 2013

University of Alberta Academic Excellence Scholarship

2001 – 2001

Alexander Rutherford High School Achievement Scholarship

2001 – 2001

## TEACHING EXPERIENCE

University of Regina

**Teaching Assistant: Online Tutor**

**2007**

Aided first-year computing science students with coursework questions and problems.

**Teaching Assistant: Lab Instructor****2008**

Taught labs to both second and third year computing science students.

**Teaching Assistant: Marker****2008**

Marked assignments for third year computing science students, including a large term project. Filled in for the instructor for a week when he was absent.

**REFEREED CONFERENCE PAPERS**

Garrett Nicolai, and Grzegorz Kondrak. English Spelling is not “close to optimal”.  
Presented as a poster at NAACL 2015, Denver, CO.

Garrett Nicolai, Colin Cherry, and Grzegorz Kondrak. Inflection Generation as Discriminative String Transduction.  
Presented as an oral Presentation at NAACL 2015, Denver, CO.

Garrett Nicolai, Grzegorz Kondrak. Does the Phonology of L1 show up in L2 Texts? (Short Paper)  
Presented as an oral Presentation at ACL 2014, Baltimore, MD.

Garrett Nicolai, Md Asadul Islam, and Russ Greiner. Native Language Identification using Probabilistic Graphic Models.  
Included in the proceedings of EICT, Khulna, Bangladesh, 2014.

Garrett Nicolai, and Robert J. Hilderman. Algorithms for Evolving No-Limit Texas Hold’em Poker Playing Agents.  
Presented as an oral Presentation at ICEC 2010, Valencia, Spain.

Garrett Nicolai, and Robert J. Hilderman. No-Limit Texas Hold’em Poker Playing Agents Created with Evolutionary Neural Networks.  
Presented as an oral Presentation at CIG 2009, Milan, Italy.

Brien Beattie, Garrett Nicolai, David Gerhard, and Robert J. Hilderman.  
Pattern Classification in No-Limit Texas Hold’em: A Head-Start  
Evolutionary Approach. Presented as an oral presentation at Canadian  
AI, 2007 Montreal, QC.

**REFEREED WORKSHOP PAPERS**

Garrett Nicolai, Bradley Hauer, Mohammad Salameh, Adam St Arnaud, Ying Xu, Lei Yao, and Grzegorz Kondrak. Multiple System Combination for Transliteration.  
Included in the proceedings of NEWS 2015. Beijing, China.

Garrett Nicolai, Colin Cherry, and Grzegorz Kondrak. Morpho-syntactic Regularities in Continuous Word Representations: A Multi-lingual Study.  
Presented as a poster at the Workshop for Vector Space Modeling, 2015.  
Denver, CO.

Garrett Nicolai, Bradley Hauer, Mohammad Salameh, Lei Yao, and Grzegorz Kondrak. Cognate and Misspelling Features for Natural Language Identification.  
Presented as a poster at the BEA Workshop, 2013. Atlanta, GA.

## INVITED TALKS

"From graphemes to phonemes to morphemes and more." University of Alberta, Linguistics Department. February, 2016.

## LANGUAGES

English – native language

French – speak fluently, read and write with moderate proficiency.

German – speak, read, and write at a high-intermediate level

Spanish – basic comprehension

Mandarin Chinese – beginner comprehension, familiarity with syntax, phonology, morphology.

## COMPUTATIONAL EXPERIENCE

Comfortable with Java, C++, C#. Familiar with Python, Perl.

Experience with a variety of natural language tools, such as POS taggers, Dependency Parsers, FSTs and Morphological analysers, word-embedding software, large dictionaries, crowd-sourced corpora (ie Wiktionary), and both annotated and unannotated corpora.

Experience working with a variety of machine learning tools, such as SVMs, MaxEnt learners, Neural Networks, Bayesian classifiers, etc.