

Curriculum Vitae

Austin Blodgett

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EDUCATION

Georgetown University, Washington, D.C.
PhD student of Computational Linguistics
Overall GPA: 3.912/4.000

August 2016 – Present

Emory University, Atlanta, GA

Bachelor of Science - Double Major in Computer Science (With Highest Honors) and Linguistics
Overall GPA: 3.902/4.000

May 2015

LANGUAGE PROFICIENCY

Native Language: English

Intermediate Level: Japanese (2.5 Years of Courses)

Basic Level: Russian, Hebrew, Latin, Spanish

TECHNICAL SKILLS

Languages: Java, C, C++, Python, SQL, R

Operating Systems: Unix, Linux, Mac OS, Windows

Computational Linguistics/Natural Language Processing Libraries and Software:

Neural network toolkits – Keras and Pytorch, Stanford Syntactic Parsers, Scikit Learn, Tregex (syntactic tree manipulation), ClearNLP Dependency Parser, WordNet, VerbNet, NLTK Library, Word2Vec, Latent Dirichlet Allocation Topic Modelling; Annis for Multi-Layer Corpora.

RELEVANT GRADUATE LEVEL COURSEWORK

- CS 571 Natural Language Processing (Emory)
- COSC 572 Empirical Methods in NLP
- LING 367 Computational Corpus Linguistics
- COSC 575 Machine Learning
- LING 469 Analyzing Language Data with R
- COSC 672 Adv. Semantic Representations
- LING 461 Speech Processing
- COSC 482 Statistical Machine Translation
- LING 485 Cognitive Grammar
- ANLY 590 Deep Learning
- LING 429 Grammar Formalisms for Computational Research
- COSC 872 Seminar on NLP (Spring 2019)

Publications

Austin Blodgett and Nathan Schneider (2019). *An Improved Approach for Semantic Graph Composition with CCG*. In Proceedings of the 13th International Conference on Computational Semantics, Gothenburg, Sweden.

Austin Blodgett and Nathan Schneider (2018). *Semantic supersenses for English possessives*. In Proc. of LREC, Miyazaki, Japan.

Nathan Schneider, Jena D. Hwang, Vivek Srikumar, Jakob Prange, Austin Blodgett, Sarah R. Moeller, Aviram Stern, Adi Bitan, and Omri Abend (2018). *Comprehensive Supersense Disambiguation of English Prepositions and Possessives*. In ACL (pp. 185-196).

RELEVANT WORK EXPERIENCE

Georgetown University, Dept. of Linguistics

August 2016 – Present

Research Assistant

- *GME Project* – The Gradable Modal Expression (GME) Corpus is a large database of English text annotated for linguistic modality. I have helped implement GME’s design, search, and display features.
- *Supersense Project* – semantic supersense corpus and schema for annotating the semantics of prepositions and other grammatical relations. The schema includes location, time, and thematic roles and allows construal of semantics in a metaphorical frame, consistent with interpretations of semantics as embodied cognition. One result of this project is my LREC 2018 paper on expanding application of these supersenses to possessive constructions.
- *CCG & AMR* – Combinatory Categorical Grammar (CCG) is a linguistic model of syntactic and semantic parsing. Abstract Meaning Representation (AMR) is a computational model of sentence meaning with a graph structure. I am conducting research on integrating these two schemas with a long term goal of automatic AMR parsing using interpretable CCG components with graph semantics.
- *Teaching Assistantship* – Assistant for the course Empirical Methods in NLP at the graduate level.

Mind and Language Lab, - Emory University, Dept. of Psychology

August 2013 – July 2016

Research Assistant

- *General description* – Design and oversee various research projects with computational domains, including individual and group research. Research fields include Computational Linguistics, Natural Language Processing, Word Meaning Representation, and Distributional Semantics.
- *Software Experience, Re-implementing Latent Dirichlet Allocation (LDA)* – LDA is a learning algorithm designed as a probabilistic graphical model, most commonly used for topic modelling. My re-implementation of LDA is in Java (see *Verbiverse*).
- *Software Experience, Re-implementing Word2vec* – Word2vec is Google’s algorithm for learning and encoding word meanings as vector representations using a neural network. My re-implementation of Word2vec is in Java.
- *Project, Verbiverse* – Our aim of the Verbiverse project was to build a library of vector representations of verb meanings, arranged by similarity. The project is based on two large corpora – Wikipedia and New York Times – along with several natural language processing and machine learning methods, such as LDA and word2vec.
- *Project, Triad Evaluation Task* – Our Triad Evaluation Task was developed as way of evaluating machine judgements of verb similarity against human judgements of similarity.

IBM Research

June 2019 – August 2019

Research Intern

- Research on semantic parsing of Abstract Meaning Representation (AMR) graphs, using neural transition-based architectures.
- Duties included scholarly research, coding, experimenting, and presenting findings to an audience of IBM researchers.

International Justice Mission (IJM)

June 2017 – August 2017

Research & Data Intern

- Intern for an anti-slavery non-profit organization - IJM - in the department for Research & Data.
- Duties included data analysis of donation information with tools from machine learning, and leading a workshop on *Data Analysis with R*.

Emory University, Dept. of Linguistics

January 2016 – May 2016

Teaching Fellow

- Teaching Fellow at Emory for two sections of the course *Ling 401: Language, Mind & Society*.
- Duties included leading class discussions, grading essays, and meeting with students to talk about possible paper topics.

Electric Power Research Institute (EPRI), Knoxville, Tennessee

June 2013 – August 2013

Intern

- Researched and compiled reports of newly developed electric-power technology to compare capabilities and restrictions. Research included interviews of electric-power developers.
- Designed and Implemented code for database and data mining related tasks, and general data analysis.

PRESENTATIONS & SUMMER SCHOOLS

- *Semantic supersenses for English possessives*. Research presentation at LREC, Miyazaki, Japan.
- *Neural Networks & Deep Learning*. Guest lecture for the course Empirical Methods in NLP.
- *AMR Parsing*. Guest lecture for the course Adv. Semantic Representations.
- Summer School at the *North American Summer School on Logic, Language, and Information*, 2018.

HONORS

- Highest Honors in Computer Science (for a thesis in computational linguistics)
- *Honors Thesis*, "The Verbiverse: Creating a Verb Space with Comparative Methods of Distributional Semantics", <https://etd.library.emory.edu/view/record/pid/emory%3Aapjw0g>
Committee: Dr. Jinho Choi (Thesis advisor), Dr. Phillip Wolff, Dr. Marjorie Pak
- Award for Excellence in the Study of Linguistics (Awarded to one senior per graduating class)
- Gretchen V and Raymond B Squires Memorial Scholarship (\$35,000)
- Phi Beta Kappa, Honors Society
- Phi Sigma Iota, International Foreign Language Honor Society
- Emory College of Arts & Science Dean's List (6 Semesters)
- Valedictorian, William Blount H.S. class of 2011
- PSAT Commended Scholar
- Questbridge Finalist

CAMPUS AND COMMUNITY ENGAGEMENT**Emory Linguistics Circle - Founding Member**

January 2013 – May 2015

Emory NLP Research Group - Member

October 2014 – May 2015

Emory Chapter of Quest Scholars - Member

September 2011 – May 2015

Emory RUF - Member

September 2011 – May 2015

Head Start – Volunteer

May 2014 – August 2016

Clarkston Middle School Tutoring

January 2015 – May 2015