

# Brennan Dell

*PhD Student in Linguistics*

*University of Illinois at Urbana-Champaign*

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## EDUCATION

### **University of Illinois at Urbana-Champaign**

Ph.D. in Linguistics. Expected May 2024

M.A. in Linguistics. December 2021

### **Rochester Institute of Technology**

B.S. in Computer Science, minor in German. May 2018.

## EMPLOYMENT HISTORY

*Teaching Assistant*

**University of Illinois at Urbana Champaign**

Urbana, Illinois

**August 2019 - May 2023**

- LING 100 - Introduction to Language Science - Grader and discussion leader
- LING 270 - Language, Technology, and Society - Primary instructor and grader
- LING 304 - Elements of Morphology - Grader and discussion leader
- LING 400 - Introduction to Linguistic Structure - Primary instructor and grader
- LING 406 - Introduction to Computational Linguistics - Grader
- LING 413 - Corpus Linguistics - Grader
- Developed assignments related to the course material
- Delivered lectures on a broad array of topics to a diverse group of students
- Led discussion sections reviewing course topics
- Developed materials for an asynchronous online course

*NLP Intern*

**AbbVie Inc.**

Urbana, Illinois

**June 2019 - present**

- Developed a preliminary Spanish-English translation model using OpenNMT to translate patient narratives
- Reviewed literature to understand the state of the art for machine translation
- Researched distillation methods to reduce the size of neural machine translation models
- Developed a process to remove sensitive information from a company translation database to create a public test set for translation in the medical domain



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- Identified files in the build process that were no longer being used and could be removed
- Gained experience in the Agile methodology

*Student Lab Instructor*

**Rochester Institute of Technology**

Rochester, New York

**August 2014 - May 2015**

- Assisted the professor with the delivery and grading of an introductory computer science course
- Assisted various students in the course and in the tutoring center outside of the course

## PUBLICATIONS

### **Investigating Neural Machine Translation with Loss-based Qualitative Evaluation**

Brennan Dell, Lane Schwartz

Second Qualifying Paper for the Master of Arts Degree in Linguistics

University of Illinois at Urbana-Champaign

### **Towards High-quality Neural Machine Translation for Polysynthetic Languages**

Brennan Dell, Lane Schwartz

First Qualifying Paper for the Master of Arts Degree in Linguistics

University of Illinois at Urbana-Champaign

### **The Supernova Rate Beyond the Optical Radius**

Sukanya Chakrabarti, Brennan Dell, Or Graur, Alexei Filippenko, Benjamin Lewis, Christopher McKee

*The Astrophysical Journal Letters*, Vol 863, L1. July 2018.

<https://arxiv.org/abs/1807.07585>

## CONFERENCE PRESENTATIONS

### **Fine-grained Error Analysis in Machine Translation**

Brennan Dell

*15th Meeting of the Illinois Language and Linguistics Society*

### **Modelling Optional Sound Variation and Obligatory Gesture Assimilation Using LSTM RNNs**

Marco Fonseca, Brennan Dell

*Laboratory Phonology (Workshop on Neural Network Models for Articulatory Gestures)*