

Elliot P. Schumacher

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EDUCATION

Carnegie Mellon University

August 2015-August 2017

Master of Science in Language Technologies

Advisor: Dr. Maxine Eskenazi

Research area: Natural Language Processing for Educational domain.

Selected Courses: Machine Learning, Algorithms for NLP, Machine Translation, Language and Statistics, Deep Learning (all PhD. level courses)

GPA: 3.58/4.00

Ohio State University

May 2014

*Bachelors of Science in Computer & Information Science, and Linguistics
with Honors, Cum Laude*

Selected Courses: Computational Linguistics, Speech and Language Processing, Advanced Artificial Intelligence, Computer Vision, Machine Learning

Overall GPA: 3.64/4.00

PUBLICATIONS

EMNLP 2016

November 2016

- E. Schumacher, M. Eskenazi, G. Frishkoff, K. Collins-Thompson. Predicting the Relative Difficulty of Single Sentences With and Without Surrounding Context. Proceedings of the 2016 Conference on Empirical Methods in Natural Language Processing (EMNLP 2016).

TECHNICAL REPORTS AND PRESS COVERAGE

A Readability Analysis of Campaign Speeches from the 2016 US Presidential Campaign

March 2016

E. Schumacher, M. Eskenazi. ([Arxiv Link](#)).

- **CMU Press Release:** *Most Presidential Candidates Speak at Grade 6 - 8 Level*
- **Selected Press Coverage**

Huffington Post: *Trumps Speeches Are At A Middle-School Reading Level, Study Says.*

Washington Post: *Trumps grammar in speeches just below 6th grade level, study finds.*

Pittsburgh Tribune-Review: *Speeches dip below 6th-grade level, study says.*

RESEARCH EXPERIENCE

Carnegie Mellon University

September 2015 - Present

Research Assistant

Pittsburgh, PA

- Worked on the DSCoVAR project, a Department of Education grant to build a Vocabulary Tutoring System.
- Developed a method of ranking the reading difficulty of a sentence for first language learners, by running a crowdsourcing task and modeling the data to find important features (see EMNLP 2016 paper).
- Built a pipeline that finds sentences with selected vocabulary words, and annotates them for difficulty and other information.

WORK EXPERIENCE

State Teachers Retirement System of Ohio

January 2013 - August 2015

Student Developer, promoted to Developer

Columbus, Ohio

- Developed internal applications in Java and C#.
- Designed and implemented a web application for internal forms.

Ohio State University Wexner Medical Center

May 2011 - January 2013

Student Intern

Columbus, Ohio

- Provided technical support within Ohio State's Hospital system.

Ohio State University College of Medicine

Sept 2009 - August 2011

Mobile Services Student

Columbus, Ohio

- Provided technical support for students in the College of Medicine

AWARDS AND ACHIEVEMENTS

Graduate Research Fellowship

Recipient

- Selected for a research fellowship, which provides full funding for tuition, stipend, and other fees.
- Scholarship value: USD 75,000 per year, renewable for duration of degree.

Maximus Scholarship Recipient

Recipient

- Received a yearly scholarship, which partially covered tuition for 4 years.

TECHNICAL STRENGTHS

Computer Languages

Python, Java, C#. Some experience in C, MATLAB

Toolkits

sklearn, nltk

Databases

MySQL, Oracle, Microsoft SQL