Peter Zukerman

(+1) 216-538-6721 | pzukerman17@gmail.com | linkedin.com/in/peterzukerman | github.com/peterzukerman

EXPERIENCE

Natural Language Processing Scientist　　　　　　　　　　　　　Since Dec. 2021
Infoscitex Corporation　　　　　　　　　　　　　　　　　　　　　*Dayton, OH*
- Integrated DeepSpeech model with Rasa NER
- Analyzed GoogleSTT, Coqui, and DeepSpeech models, tailored for low resource tasks
- Bootstrapping a Named Entity Recognition schema, using self-learning to boost accuracy
- Constructing an end-to-end STT to NER pipeline

Natural Language Processing Intern　　　　　　　　　　　June 2020 - Aug. 2020
Raytheon BBN　　　　　　　　　　　　　　　　　　　　　　*Cambridge, MA*
- Developed an AI visualization metric, enhancing detection by 83%
- Pioneered a sorting algorithm, boosting accuracy by a factor of 2.6 with no efficiency loss
- Designed logic for data models, increasing data collation and improving visualization

Speech Processing Intern　　　　　　　　　　　　　　　May 2019 - Sept. 2019
VoiceItt LTD.　　　　　　　　　　　　　　　　　　　　　*Tel Aviv, Israel*
- Integrated VoiceItt backend infrastructure with Amazon Alexa
- Introduced a low-resource data augmentation paradigm, improving speech recognition by 24%
- Expanded parselmouth library, optimizing Praat's usage for machine learning in Python

RESEARCH AND PAPERS

BERT Verb Alternations | *University of Washington*　　　　Mar. 2022 - June 2022
- Wrote a paper on verb alternation classes and understanding using BERT. Accepted to BlackBoxNLP '22.
- Generated verb alternation sentence corpus, FAVA-ex, to augment existing FAVA and LaVA corpuses

Natural Language Processing | *University of Illinois at Urbana-Champaign*　　Jan. 2019 - June 2021
- Co-authored paper on adversarial speech synthesis
- Improved a morphological analyzer for the Siberian Yupik language with Prof. Lane Schwartz
- Wrote a Yupik E-Book parser, now in active use in St. Lawrence Island community
- IYIL 2019 Paper on initiating a tool-building infrastructure the Yupik community - Fort Wayne, IN
- Presented at CodeMash 2019 on Unicode, UTF-8, and foreign languages

EDUCATION

University of Washington　　　　　　　　　　　　　　　　　　Seattle, WA
Master of Science in Computational Linguistics　　　　　　　　　*Sep. 2021 – May 2023*

University of Illinois at Urbana-Champaign　　　　　　　　　Champaign, IL
Bachelor of Science in Computer Science and Linguistics　　　　*Aug. 2017 – May 2021*

COURSEWORK

Linguistics: Syntax for CompLing, Semantics and Pragmatics, Phonetics, Generative Grammar
Computer Science: Data Structures, Algorithms, Systems Programming, Applied Machine Learning
Computational Linguistics: Shallow Techniques in NLP, Statistical NLP, NLP in Polysynthetic Languages
Planned Coursework: Deep Processing Techniques in NLP, Applied ML in NLP

TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript, HTML/CSS, Ruby, R
Developer Tools: Git, Docker, Linux, Google Cloud Natural Language, AWS
Libraries: pandas, Sci-Py, NumPy, Matplotlib, NLTK, carmel, Tensorflow, PyTorch

Foreign Languages: Russian (Fluent), Japanese (Business Proficiency), Korean, Hebrew and Spanish (Conversant)