

Peter Zukerman

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Science and Linguistics

Aug – May 2021

Champaign, IL

EXPERIENCE

Full Stack Developer

Radiate Inc.

Jan – Mar 2021

Brooklyn, NY

- Optimized user feeds and added user handles to database on Backend (Python, Django, Postgres)
- Displayed user handles and refactored feed views on Frontend (React Native, Swift)
- Deployed to production on iOS and Android after rigorous testing on dev servers on AWS

Natural Language Processing Intern

Raytheon BBN

June - Aug 2020

Cambridge, MA

- Developed AI visualization metrics, 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

VoiceIt LTD.

May - Sept 2019

Tel Aviv, Israel

- Integrated VoiceIt 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

Speech Perception (JP/US) | University of Tokyo

Since Oct 2019

- Analyzing instantaneous perception of Japanese English by listeners with various language profiles
- Working with Prof. Nobuaki Minematsu - published paper to Phonetic Society of Japan
- Concluded English speech utterances have 70% comprehension rates among Japanese native speakers

Natural Language Processing | University of Illinois at Urbana-Champaign

Since Jan 2019

- Co-authored ACL paper on adversarial speech synthesis, currently submitted
- 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

PROJECT HIGHLIGHTS

Twitter Sarcasm Detection | Python, Jupyter, Keras, Pandas, BERT

Sept - Dec 2020

- Data augmentation and preprocessing increased usable dataset from 5000 to 20000 entries
- Implemented using BERT and improvements over various state of the art language models
- Ranked #1 on online text classification leaderboard with 1000+ competitors

claid.club | Ruby, HTML, Javascript, YAML, JSON

Since May 2019

- CLAIID website serves 100+ weekly users, tracked by Google Analytics
- Full Discord server integration - moderate 150+ concurrent users
- Head of Tutoring program - coordinate events, manage members and lead teams

TECHNICAL SKILLS

Languages: Python, React Native, Java, C/C++, JavaScript, HTML/CSS, Ruby

Frameworks: Django, Redis, Postgres, RabbitMQ, Flask

Developer Tools: Git, Docker, Linux, Google Cloud Natural Language, AWS, Postman

Libraries: pandas, Sci-Py, NumPy, NLTK, Tensorflow, PyTorch, Keras, Matplotlib, Seaborn

Foreign Languages: Russian (Fluent) - Japanese (Business Proficiency) – Chinese, Korean, Spanish (Conversant)