

ZHAOMIN XIAO

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EDUCATION

University of North Texas

Sep 2019 - Present

Ph.D. in Computer Science and Engineering

University of Pittsburgh

May 2019

M.S. in Information Science

Shenzhen University

July 2017

B.S. in Mathematics & Applied Mathematics

RESEARCH INTEREST

Natural Language Processing, Deep Learning, Spatio-temporal Knowledge Mining

RESEARCH EXPERIENCE

Spatial-temporal Knowledge Mining

Aug 2019 - Feb 2021

- Create a new task of determining whether the author of the tweet was located in the mentioned location.
- Build a new corpus consisting of 6,540 tweets. The annotation quality is guaranteed by ensuring the Krippendorff's alpha is over 0.60.
- Construct a multi-modal neural model to combine the textual features and image features. The experimental results show that the multi-modal model performs better than the single-modal model using only text or only images.
- Error analysis shows that advanced tools for location identification and advertisement filter should be included in future research to improve the accuracy of spatial-temporal information inferring.

Temporal Ordering of Locations

Oct 2019 - Apr 2021

- Determine whether the author of the travelogue is located in the mentioned location or not.
- Order the visited location in every document of the travelogue.
- Error analysis shows that contextual information is essential to order the visited locations.

Native Language Identification

Aug 2018 - Dec 2018

- Extract lots of linguistic features, such as part-of-speech tags, stop words, and punctuation marks, from the TOEFL essays written by English Learners whose native language is one of eleven languages.
- Tune the parameters using GridSearch with 5-fold cross-validation.
- Visualize the confusion matrix of 11 categories.

TECHNICAL SKILLS

**Computer Languages
Tools**

Python, Java, C, HTML, CSS, JavaScript
PyTorch, TensorFlow, scikit-learn, nltk, spaCy