# Yuqing Zhang (张字晴)

## Research Interests

Broad Phonetics, Speech Processing

Narrow Prosody Acquisition, Prosody-Semantics Interface, Communicative Efficiency in Phonetic Contrasts (Functional Load), Improving Prosody in TTS

## Education

2019 - Present M.A. in Language Intelligence and Technology (3.89/4.0)

Beijing Language and Culture University (BLCU), Beijing, China

2015 - 2019 B.A. in English Language and Literature (3.79/4.0)

Beijing Foreign Studies University (BFSU), Beijing, China

## **Publications**

### **Conference Proceedings**

Yuqing Zhang, Zhu Li, and Jinsong Zhang. "Towards the Use of Pretrained Language Model GPT-2 for Testing the Hypothesis of Communicative Efficiency in the Lexicon." In: *International Conference on Asian Language Processing* (December 2021). [pdf]

Yuqing Zhang, Zhu Li, Bin Wu, Yanlu Xie, Binghuai Lin, and Jinsong Zhang. "Relationships Between Perceptual Distinctiveness, Articulatory Complexity and Functional Load in Speech Communication." In: *Proc. Interspeech* (2021), pp. 1733–1737. [doi]

Yuqing Zhang, Zhu Li, Binghuai Lin, and Jinsong Zhang. "A Preliminary Study on Discourse Prosody Encoding in L1 and L2 English Spontaneous Narratives." In: *Proc. Interspeech* (2021), pp. 3949–3953. [doi]

Yuqing Zhang, Zhu Li, and Jinsong Zhang. "A Comparison Study on the Alignment of Prosodic and Semantic Units and Its Effects on F0 Shifting in L1 and L2 English Spontaneous Speech." In: *International Symposium on Chinese Spoken Language Processing* (2021). [doi]

Zhu Li, **Yuqing Zhang**, Dengfeng Ke, Binhuai Lin, and Yanlu Xie. "Data-driven Stimulus Continuum Generation with Variational Autoencoder." In: *National Conference on Man-Machine Speech Communication* (October 2021). [pdf]

#### **Presentations**

Yuqing Zhang, Zhu Li, and Jinsong Zhang. "Relationships between Perceptual Distinctiveness and Functional Load in Different Phonological Contexts". In: *National Conference on Man-Machine Speech Communication* (October 2021).

Yuqing Zhang and Jinsong Zhang. "Patterns in Information Contributions of Phonemic Contrasts Based on Functional Load". In: *The 14th Phonetic Conference of China (PCC)* (July 2021).

Rian Bao, Wenhan Yao, **Yuqing Zhang**, and Jinsong Zhang. "A Quantification Method for Intelligibility and Comprehensibility of Speech Based on Functional Load". In: *The 14th Phonetic Conference of China (PCC)* (July 2021).

#### **Manuscripts**

(Submitted to ICASSP 2022): Zhu Li, **Yuqing Zhang**, Mengxi Nie, Ming Yan, Mengnan He, Ruixiong Zhang, Caixia Gong. "Improving Prosody for Unseen Texts in Speech Synthesis by Utilizing Linguistic Information and Noisy Data." [arxiv]

(Submitted to ICASSP 2022): Mengnan He, Tingwei Guo, **Yuqing Zhang**, Zhu Li, Ruixiong Zhang, Caixia Gong. "Improving GAN-based Vocoder for Fast and High-quality Speech Synthesis."

## Teaching Experience

Winter 2021 **Teaching Assistant**, Introduction to Probability Theory, BLCU

Summer 2017 **Teaching Assistant**, Humanity, Science and Nature in the West, BFSU

## Working Experience

July 2021 - Speech Algorithm Intern, Speech Synthesis and Language Modeling, AI

Present Enabling Platform, DiDi Chuxing, Beijing, China

Spring 2019 **Research Assistant**, Language Aging project, Laboratory of Phonetics and Auditory Science, *Chinese Academy of Social Sciences* 

Winter 2017 **Dictionary Editing Intern**, Educational Publishing Department, Foreign Language Teaching and Research Press, Beijing, China

## Languages & Skills

Programming Languages & Tools: Python, R, Praat, Perl, LATEX

 ${\bf Natural\ Languages:\ Mandarin\ (native),\ English\ (fluent),\ German\ (basic),}$ 

Spanish/Catalan (basic), Japanese (basic)

## Awards & Grants

- 2021 2nd prize for the best conference paper (PCC 2021) (first author)
- 2021 3rd prize for the best conference paper (PCC 2021) (third author)
- 2021 National Scholarship (Top 2% at School of Information Science), BLCU
- 2019, 2021 First Class Scholarship, BLCU
  - 2018 Second Class Scholarship & Outstanding Student Award, BFSU

## **Activities**

- 2021 Student Volunteer, Interspeech 2021 Brno
- 2020 Student Volunteer, Interspeech 2020 Shanghai
- Spring 2016 English Teaching Volunteer, Lengquan Village, Beijing

## Membership

2021 - Present Student Member, International Speech Communication Association