# Yuqing Zhang (张字晴)

## Education

### 2022 - Present PhD in Computational Linguistics

University of Groningen, the Netherlands

**Project**: Simulating Evolution of Linguistic Structure Using Neural Agents Advisor: Gertjan van Noord, Arianna Bisazza, Tessa Verhoef

#### 2019 - 2022 M.A. in Language Intelligence and Technology

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

**Thesis**: Communicative Efficiency Modulates Relationships between Perceptual Distinctiveness, Articulatory Complexity and Functional Load

Side Project: Discourse Prosody Encoding in Spontaneous Narratives

#### 2015 - 2019 B.A. in English Language and Literature

Beijing Foreign Studies University (BFSU), Beijing, China

**Thesis**: Comparison of pitch profiles in L1 and L2 Mandarin: An acoustic analysis of the accented Mandarin prosody (Excellent Graduation Thesis)

## Research Interests

Broad Computational Modeling of Human Language, Language Evolution

Narrow Computational Modeling of the Phonemic Systems, Language Emergence of Humans and Deep Neural Agents

#### 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: *Proceedings of 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: *Proceedings of 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**

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]

# 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 - Jan Speech Algorithm Intern, Speech Synthesis and Language Modeling, AI Enabling

2022 Platform, DiDi Chuxing, Beijing, China

Spring 2019 Research Assistant, Language Aging project, Laboratory of Phonetics and Speech

Science, Chinese Academy of Social Sciences, Beijing, China

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

# Languages & Skills

## Programming Languages & Tools: Python, R, Praat

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, 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 - 2022 Student Member, International Speech Communication Association