## Fengwei LIU

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#### **EDUCATION**

### Carleton University, Ottawa, ON, Canada

Sep 2025 – Jul 2027

Master of Cognitive Science

#### Shanghai International Studies University, Shanghai, China

Sep 2020 - Jul 2024

B.A. in Russian (GPA: 3.9/4.0)

• Thesis: Diachronic Shifts in Dependency Distance: Evidence from Russian Corpora

#### The University of Hong Kong, Hong Kong

Jul 2023

Summer Program, AI+ Metaverse Value Creator

#### Kazan Federal University, Kazan, Russia

Sep 2022 – Jun 2023

Exchange Program, Philology

#### **SKILLS**

Languages: Mandarin & Wu Chinese (native); English (fluent, IELTS 8.0); Russian (intermediate)

Programming Languages: Python (Pandas, numpy, sk-learn, transformer, SciPy, PyTorch, spaCy, nltk),

R (dplyr, ggplot2), Jupyter Notebook, LaTeX

Software: VS Code, R Studio, Twinmotion, Roblox, Photoshop, Premiere Pro, iMovie

#### **PUBLICATION & PRESENTATIONS**

#### **Publications**

Liu, Y., Liu, F., Wang, Z., & Mei, Y. (2024). Multilingualism, language choice, and identity construction: Diasporic Ukrainians in Shanghai. *Journal of Sociolinguistics*, 28, 42–60. <a href="https://doi.org/10.1111/josl.12652">https://doi.org/10.1111/josl.12652</a>

#### **Oral Presentations**

Liu, Yuanyuan; **Liu, Fengwei**; Wang, Zichen. (Jul 2023) "Diasporic Identity and Multilingualism: Language Choice and Practice of Ukrainians in a Metropolitan City". *27<sup>th</sup> World Congress of Political Science*. International Political Science Association. Buenos Aires, Argentina.

Wang, Zichen; **Liu, Fengwei**. (Mar 2023) "'Light' and 'thick' constructing of identities through language: Diasporic Ukrainians in a metropolitan city". *Sociolinguistics Symposium*. University of Illinois.

#### **Poster Presentation**

**Liu, Fengwei**; Wang, Zichen. (Jun 2023) "'Light' and 'thick' constructing of identities through language: Diasporic Ukrainians in a metropolitan city". *International Symposium on Bilingualism*. Macquarie University. Sydney, Australia.

#### RESEARCH EXPERIENCE

## Bias mining in new media with semi-supervised clustering: Discursive representations of foreign talents in Shanghai

Jan 2024 - present

Co-author with Dr. Yuanyuan Liu & Dr. Noboru Matsuda

- Independently modified a Python web scraper that successfully bypassed anti-scraping measures, compiling a corpus of more than 10,000 articles.
- Cleaned and preprocessed the whole corpus, including tokenization and removal of Chinese characters, headers and footers, template texts, emoticons, and URLs.
- Created an algorithm that exhaustively selects all collocate candidates by computing T-test over CF-

- ISF (Collocate Frequency Inverse Sentence Frequency).
- We are currently designing and experimenting with Differential Collocation Analysis, which first learns the "biased" collocates, then uses them as embeddings. I am also enhancing collocational analysis with dependency parsers, so that the limitations of context window could be solved.

# Diachronic Changes in Dependency Distance: Evidence from Russian Corpora Nov 2023 – Apr 2024 Undergraduate Thesis

- Implemented preprocessing, tokenization, and syntactic parsing on a 250-million-token diachronic corpus with spaCy.
- Developed an algorithm that computed the Mean Dependency Distance of all sentences. Then conducted ANOVA and Tukey HSD analyses in R.
- Reviewed literature on syntactic complexity and cognitive constraints during incremental processing. Interpreted empirical findings and deducted scientific explanations.

#### How topicality affects pronoun interpretation

Jul 2023 – Sep 2023

Research Assistant, HKU, Dr. Heeju Hwang (Assistant Professor)

- Coded two sentence-continuation experiments which manipulated the topicality of Mandarin sentences via comparison of canonical and left-dislocated structures. Interpreted the referents of the tested pronouns as a function of grammatical role.
- Advanced the coding scheme via introducing a new exclusion type to assist with data cleaning.
- Distributed experimental surveys to native Mandarin speakers and negotiated monetary incentives.

## Processing conventional and novel metaphors: An ERP study of Chinese learners Apr 2023 – Jun 2023 of Russian

Research Assistant, SISU, Ph.D. Candidate Dongli Feng

- Reviewed theories of integrated three-element metaphoric systems and designed ambiguous, novel, and conventionalized metaphor pairs using the Russian National Corpus for ERP experiments.
- Distributed surveys to native Russian speakers to validate metaphor types and communicated feedback, correcting grammatical errors found in the experiment stimuli.

#### **OUTREACH AND EMPLOYMENT**

Data Processing Intern, **Shanghai Artificial Intelligence Lab**, Shanghai, China Apr 2023 – Jun 2023

- Investigated and provided over 300 content-rich websites and datasets in 8 languages. Drafted collection instructions for these websites, which constituted over 4tb data.
- Conducted quality assessment for over 1000 pieces of Russian text, image, and audio samples. Annotated, categorized, and reported language-contingent issues, and suggested workarounds.
- To address the issues found, wrote a manual that guided database specialist to distinguish Russian from other languages and deal with language-specific properties.
- Assisted in other data-processing tasks such as toxic language in Russian.

## Social Media Analyst Intern, SISU China Youth.

Aug 2022 - Aug 2023

• Translated and reported monthly on the social media activities of three organizations.

## Marketing Intern, BeKind, Mars Wrigley, Shanghai, China

Jul 2022 - Dec 2022

- Managed the sales database. Evaluated and assessed user behavior and assisted in selection of Key Opinion Leaders (KOL). Drafted and edited campaign materials.
- Liaised between brand, marketing, and live-streaming agencies, as well as over eighty KOLs.

## Data Contributor, Language Index, Virtual Linguistics Campus (VLC).

Jul 2022

• Delivered audio recordings, transcription, transliteration, and translation for Wu Chinese (Shanghainese). <a href="https://oer-vlc.de/mod/glossary/showentry.php?eid=5455">https://oer-vlc.de/mod/glossary/showentry.php?eid=5455</a>

## **HONORS AND AWARDS**

- Russian-Chinese Government Exchange Grant, 2022 2023
- NAWA Summer Polish Language School Scholarship, 2022
- First-class SISU Excellence Scholarship, 2021 2022 Spring & Fall
- Second-class SISU Excellence Scholarship, 2020 2021 Spring & Fall