

## LI Yuxi (Aiden) 李玉玺

The Hong Kong Polytechnic University, Hong Hum, Kowloon

Tel: (+852)55163806 Email: [yuxi.aiden@gmail.com](mailto:yuxi.aiden@gmail.com)

### RESEARCH INTERESTS

Visual and auditory mechanisms, Second language acquisition, Reading comprehension and eye, Human-AI social interaction, Speech and music integration and interaction

### EDUCATION

#### **The Chinese University of Hong Kong (CUHK)**

**Hong Kong**

*MA in Linguistics*

GPA: 3.52/4.0

2023 - 2024

**Research Project:** Investigating Impact of Tonal System Complexity in Language on Speaker's Pitch Perception

Abilities: Implications for Cross-domain Transferability

*Supervisor:* Dr. Feng Gangyi

#### **The Hong Kong Polytechnic University (PolyU)**

**Hong Kong**

*BA (HONS) in Chinese and Bilingual Study*

2019 - 2023

GPA: 3.53/4.3 *Dean's Certificate of Academic Achievement 2022/23*

- Psycholinguistics and Neuro Cognitive Linguistics, Statistics for Language Studies
- Phonetics, Semantics, Syntax and Pragmatics of English & Chinese

**Capstone Project:** Does the Perception of Pitch Diverge in Speech and Music? Auditory Cognition is Regulated by Input Domains.

*Supervisor:* Dr. Yu Shaoyun

- Conducting a pitch perception experiment with 35 participants to test their consistence in perceiving and indicating pitch disharmony in both speech and music.
- Analyzing the rating scores and reaction time and revealing the possible psychologic mechanisms, including categorical perception, memory and prediction.

*BA (HONS) in English Studies for the Professions*

2019 - 2023

GPA: 3.32/4.3

- Corpus Analysis and Multimodal Language Analysis, Language Acquisition of L1 and L2
- Academic-English writing and Communication

**Capstone Project:** Construction of self and other in Rock lyrics: A corpus based diachronic study (1981-2010)

*Supervisor:* Dr. Jamie McKeown

- Corpus of top Rock music lyrics, use Keyness, KWIC and concordance analysis to reveal the socio-cultural factors that contributes to the change in identity, social rules and value.

### RESEARCH EXPERIENCES

#### **The Brain, Language, and Computation (BLC) Lab, PolyU**

Feb. 2022 - Present

Research Assistant and Student Helper <https://blclab.org/yuxi-li/>

**Project: Neural Coupling during Multimedia Learning: Impacts of Social Interaction, Embodiment Level and Instruction Medium**

2023 - 2024

**Project: The neural basis of multimedia learning: Social, cognitive, and affective features of the instructor image for effective online teaching**

2022

- Performing simultaneous fMRI scanning & eye-tracking experiment as a secondary user of MRI
- Conducting and collecting data for psychological and behavioral experiments in prior/post-fMRI experiments
- Contacting and recruiting experiment subjects, creating online background questionnaires and appointment websites

**Project: The neurocognitive basis effect of instructors in virtual learning environments (in progress)**

- Preparing lecturing videos with AI instructors, AI speech clone, and human portrait expansion.
- Conduct Eye-tracking experiment of video learning.

**Project: The neurocognitive basis of language acquisition study in immersive virtual reality (in progress)**

- Conducting an EEG study (both ERP and time-frequency) during real-time learning a set of artificial lexicons describing the special relation and object entities.

**Brain and Mind Institute (BMI), CUHK**

Student Helper

Sep. 2023 - Jun. 2024

- Conducting EEG experiment of infants' language and cognitive development by FFR with subjects aged from preterm 1 month to 60 months
- Conducting fNIRS experiment on the music representation with social interaction on the violin dual play

**PUBLICATION**

Peng, Y., Nastase, S. A., Huang, Y., Wu, M., Li, Y., & Li, P. (2024). Teacher-student social interaction enhances neural and visual synchrony for virtual lectures. Poster presentation at the Cognitive Neuroscience Society (CNS) 2024 Annual Meeting, Toronto, Ontario, Canada

Li, Y., & Yu, S. (2023). Does the Perception of Pitch Diverge in Speech and Music? Auditory Cognition is Regulated by Input Domains. Oral presentation at the 4th Macau Symposium on Cognitive and Brain Sciences (MSCBS 2024), Macau, China

**LANGUAGE**

- Mandarin Chinese (Native); Cantonese (Fluent); English (IELTS 7.5)

**SKILLS**

- Experimental: PsychoPy, EyeLink 1000, ANT Wearable EEGO, E-prime, DMDX
- Sound Processing: Praat, Goldwave, Audacity
- Statistics: SPSS, Excel, R, Python
- Office: Qualtrics, Gorilla, Google forms, Prolific
- Photoshop-beta, Adobe Premiere (Basic)
- AI generation: HeyGen, Synthethia Studio, Mockingbird, Reals.ai, PlayHT