# Minkyu Kim

Curriculum Vitæ





## **Education**

2019–2025 **Ph.D. & M.S.**, *University of California, Irvine*, United States Joint M.S. in Statistics and Ph.D. in Cognitive Sciences Program

2012–2019 **B.S. & B.A.**, *Seoul National University*, South Korea B.S. in Chemistry and B.A. in Linguistics (Honors: *cum laude*)

2013 Exchange Research Student, *Shanghai Jiao Tong University*, China (PRC) Campus Asia Program

#### PhD Dissertation

title Evidence for Segregated Cortical Pathways for Prosodic and Segmental Control in Speech

supervisor Dr. Gregory Hickok

description This thesis examines the neural mechanisms of human speech production, asking whether prosodic control (e.g., pitch, largely laryngeal) and segmental control (e.g., consonants and vowels, largely supralaryngeal) are supported by distinct cortical pathways. Drawing on two complementary fMRI paradigms, this study provides evidence for a functional segregation of speech motor networks within the frontal and temporal lobes, with particular attention to prosodyrelated functions in the dorsal premotor cortex. These findings advance understanding of the neural basis of fluent speech and motivate pathway-specific targets for diagnosis and intervention in motor speech and prosodic disorders.

# **Professional Experiences**

2019–2023 Teaching Assistant, University of California, Irvine

## **Honors and Awards**

- 2024 The Tarow and Minako Indow Fellowship for Research Excellence,

  Department of Cognitive Sciences, UC Irvine

  Stipend of USD 7,000
- 2024 **Graduate Division Completion Fellowship**, *Graduate Division*, UC Irvine Full tuition and additional stipend of USD 9,500 for 1 quarter
- 2019 **Graduate Dean's Recruitment Fellowship**, *School of Social Sciences*, UCI Full tuition and additional stipend for 3 quarters (1 academic year)
- 2012–2017 **Presidential Science Scholarship**, *Korea Student Aid Foundation*, South Korea Full tuition and additional stipend for 8 semesters (4 academic years)
  - 2016 Dean's list, College of Natural Sciences, Seoul National University

#### **Publications**

- [1] S. Ryun, M. Kim, and C. K. Chung. Cortical maps of somatosensory perception in human. *NeuroImage*, 276:120197, 2023.
- [2] M. Kim, H. Byun, G. Choe, and G. Yurn. A quantitative study on the 'phags-pa script. *SCRIPTA*, 10:1–76, 2018.
- [3] J. Lee, M. Kim, H. Ko, J. Kim, Y. Kim, and K. Shin. Electrowetting technique for measuring the thickness of spin-coated hydrophobic fluoropolymer films. *Sci. Adv. Mat.*, 7(5):869–873, 2015.
- [4] O. S. Kwon, M. Kim, T. Kim, C. Lee, S. Han, and K. Shin. Reversibility of electrowetting on hydrophobic surfaces and dielectrics under continuous applied dc voltage. *J. Nanosci. Nanotechnol.*, 11(8):7132–7136, 2011.

## **Presentations**

#### Poster

Prosodic and Phonetic Coordination of Speech: fMRI Evidence for Parallel Circuits", Society for Neurobiology of Language, Washington D.C., Sep 2025.

"Neural Pathways of Vocal Pitch Modulation: An fMRI Study", Society for Neuroscience, Chicago, IL, Oct 2024.

#### Oral

"Datives in Dependent Case Theory: Lexical, Dependent, or Unmarked?", The 13th Formal Description of Slavic Languages, Göttingen, Dec 2018.

"Some issues on the inconsistency of the inventory of the 'Phags-Pa script", The 60th Annual Meeting of the Permanent International Altaistic Conference, Székesfehérvár, Aug 2017.

#### **Professional Membership**

Member, the Society for Neuroscience

Member, the Society for the Neurobiology of Language

## Mentoring

# Undergraduate Research Assistants

- 2025 Lydia Cheng (UC Irvine)
- 2025 Trisha Le (UC Irvine)
- 2024–2025 Wandy Kongmebhol (UC Irvine)
- 2024–2025 Andre Musaderyan (UC Irvine)
- 2024–2025 Janaki Raghavan Nair (UC Irvine)
- 2024–2025 Bianca Rios (UC Irvine)
- 2024–2025 Emily Perez Wong (UC Irvine)
  - 2024 Chen Chi (UC Irvine)

## Leadership

2023-2025 Chair, Korean Graduate Students Association at UC Irvine

## Military Service

2014–2016 Sergeant, Republic of Korea Army

Honorably discharged Jan 20, 2016.

## **Computer Skills**

statistics R, SPSS

programming Python, C/C++, MATLAB, SQL, LATEX

web dev. HTML, CSS, Javascript, and basic skills in various AWS products

## **Language Proficiency**

fluent Korean (native), English

intermediate Mandarin Chinese, Japanese

basic German, Swedish, Russian, Finnish

I ka 'ōlelo nō ke ola, i ka 'ōlelo nō ka make

In language there is life, in language there is death.

(Hawaiian proverb)