

# Junghyun (Andy) Kim

Curriculum Vitae / June 30, 2025

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## EDUCATION

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| <b>Purdue University</b> , Doctor of Philosophy            | Aug. 2024 - Present   |
| • Major in Mathematical and Computational Psychology       | Indiana, USA          |
| • Advisor: Anne Sereno                                     |                       |
| <b>Hanyang University</b> , Master of Science              | Mar. 2022 - Feb. 2024 |
| • Major in Cognitive Science (Department of Data Science)  | Seoul, South Korea    |
| • Advisor: Sungshin Kim                                    |                       |
| <b>University of Toronto</b> , Honours Bachelor of Science | Sep. 2015 - Nov. 2021 |
| • Major in Neuroscience                                    | Ontario, Canada       |
| • Major in Psychology                                      |                       |
| • Minor in Computer Science                                |                       |
| <b>Gunagdong Country Garden School</b> , High School       | Sep. 2012 - Jun. 2015 |
| • International Baccalaureate (IB) Diploma Programme       | Foshan, China         |

## RESEARCH INTERESTS

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computational cognitive neuroscience, computational modeling, human neuroimaging, vision, decision making, and brain-inspired AI

## RESEARCH

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| <b>Sereno Lab</b>   | Aug. 2024 - Present   |
| • PI: Anne Sereno   | Indiana, USA          |
| • Graduate Research Assistant                                 |                       |
| – Conducted fMRI experiments.                                 |                       |
| – Trained undergraduate students to run behavior experiments. |                       |
| <b>Computational Motor Neuroscience Lab</b>                   | Dec. 2021 - Jul. 2024 |
| • PI: Sungshin Kim  | Seoul, South Korea    |

- Graduate Research Assistant & Lab Manager
  - Proposed original research ideas about de novo motor learning mechanism and connectome-based predictive modeling (CPM).
  - Conducted fMRI and TMS experiments.
  - Performed univariate voxel-wise, univariate surface-based and functional connectivity analyses for publication.
  - Learned other fMRI analysis techniques such as multivariate pattern analysis.
  - Helped the PI writing grant proposals.
  - Mentored other lab members in experimental techniques, fMRI data preprocessing, data analysis and scientific writing.
  - Executed administrative tasks such as managing the lab budget, writing expense documents, organizing experiments, etc.
  - Designed and made the lab website ([link](#)).

**Toronto Decision Neuroscience Lab**

Feb. 2021 - Nov. 2021

- PI: Cendri Hutcherson Toronto, Canada
- Undergraduate Research Assistant
  - Joined a project called intention - behavior gap in which I helped making surveys and building experiments using The Experiment Factory ([link](#), [link](#) - ‘danieljwilson’ is the project leader, and ‘juhng62’ is me).
  - Piloted every demo experiment and gave feedback.

**PUBLICATIONS**

Park, S., **Kim, J.**, & Kim, S. (2024). Corticostriatal activity related to performance during continuous de novo motor learning. *Scientific Reports*, 14(1), 3731. <https://doi.org/10.1038/s41598-024-54176-9>

**Kim, J.**, Park, S., Yoo, K., & Kim, S. (2024). Double dissociation of visuomotor interaction mediated by visual feedback during continuous de novo motor learning. *Communications Biology*, 7(1), 1117. <https://doi.org/10.1038/s42003-024-06808-z>

**MANUSCRIPTS UNDER REVIEW AND IN PREPARATION**

Park, S., **Kim, J.**, & Kim, S. (in prep). Network-targeted TMS modulates corticostriatal activity during motor skill learning.

## CONFERENCE PRESENTATIONS

**Kim, J.**, Yoo, K., & Kim, S. (2023, November 11-15) Whole-brain functional connectome predicts individual differences in learning a motor skill [Poster presentation]. *Society for Neuroscience 2023, Washington, D.C., USA*

**Kim, J.**, Park, S., & Kim, S. (2022, November 12-16) Double dissociations of the effects of visual feedback on motor and somatosensory cortices during visuomotor learning [Poster presentation]. *Society for Neuroscience 2022, San Diego, CA, USA*

Park, S., **Kim, J.**, & Kim, S. (2022, November 12-16) Highly selective striatal response to visual feedback in reward-based motor skill learning [Poster presentation]. *Society for Neuroscience 2022, San Diego, CA, USA*

## TEACHING

*UG: undergraduate, G: graduate, F: Fall, SP: Spring, SU: Summer, TA: teaching assistant, I: instructor.*

*All English courses.*

**Purdue University** Indiana, USA

| Course Title                                     | Level | Term              | Role |
|--|-------|-------------------|------|
| PSY201: Introduction to Statistics in Psychology | UG    | SU 25             | co-I |
| PSY201: Introduction to Statistics in Psychology | UG    | F 24, SP 25, F 25 | TA   |

**Hanyang University** Seoul, South Korea

| Course Title                                | Level | Term         | Role |
|---|-------|--------------|------|
| AIN6017: Cognitive Computational Sciences   | G     | F 23         | TA   |
| SOI2007: Introduction to Cognitive Sciences | UG    | F 22, F 23   | TA   |
| SOI3006: Computational Cognitive Sciences   | UG    | SP 23        | TA   |
| MAT2017: Probability & Statistics           | UG    | SP 22, SP 23 | TA   |

## SKILLS

|                         | Advanced             | Intermediate             | Beginner             |
|-------------------------|----------------------|--------------------------|----------------------|
| <b>Languages</b>        | Korean, English      | Chinese                  |                      |
| <b>Programming</b>      | Python, Shell Script | R, MATLAB, Git, $\LaTeX$ | C, Docker, SPSS, SQL |
| <b>NeuroImaging</b>     | AFNI, FreeSurfer     | FSL                      |                      |
| <b>NeuroStimulation</b> |                      | TMS                      |                      |
| <b>Visualization</b>    | Inkscape             | MRICroGL                 |                      |
| <b>Music</b>            |                      | Drum                     | Piano                |

## CERTIFICATES

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Certificate of Foundations in College Teaching

Mar. 2025

- Purdue University

CPR / AED for Professional Rescuers

Nov. 2024 - Oct. 2026

- American Red Cross

## VOLUNTEER

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Ronald McDonald House Charities

Feb. 2016 - Aug. 2018

- 302 hours

Centenary Hospital, Toronto, Canada