SUNGJOON PARK 박성준

♀ Pittsburgh, PA **♀** github.com/sjp117 **☑** sjp30117@gmail.com **९** +1 (979) 422-1264

EDUCATION

Texas A&M University, College Station, TX

2020 - 2022

Master of Science in Psychological Sciences

Thesis: Relationship between Perspective Taking with Space and People

Supervisor: Dr. Heather Burte

University of Waterloo, Ontario, Canada

2013 - 2020

Bachelor of Arts in Psychology, with Thesis, Minor in Philosophy & Cognitive Science

Thesis: Mental Model Updating and Pupil Response

Thesis Advisor: Dr. Britt Anderson

EMPLOYMENT

Research Assistant 2023 – Present

Psychology Department

Carnegie Mellon University, Pittsburgh, PA

Supervisors: Dr. Laurie Heller & Dr. Michael Tarr

RESEARCH INTEREST

Neural mechanism of spatial cognition and its relationship with non-spatial cognitive functions; Memory; Vision; Neuroimaging; Computational techniques

RESEARCH EXPERIENCE

tarrlab, Carnegie Mellon University

2023 - Present

PI: Dr. Michael Tarr Roles: Research Assistant

- fMRI study participant recruitment, data collection & processing
- BrainDiVE: Using data driven method to generate images designed to activate specific regions of interest. Allowing for targeted exploration of neural selectivity in human visual cortex (Supervised by Dr. Andrew Luo & Dr. Margaret Henderson)
- featsynth: Investigating neural selectivity of coarse and fine category visual features (Supervised by Dr. Margaret Henderson)
- Setup of computing solutions; Assembling computer, and setting up software

Auditory Lab, Carnegie Mellon University

2023 - Present

PI: Dr. Laurie Heller Roles: Research Assistant

- Data collection, organization, visualization, statistical analysis, and feedback/editing manuscripts for three Misophonia projects.
- Naturalistic Multimodal Interaction: Research of sound locallization and the effect of visual and auditory cross-modal interaction in naturalistic setting (Collaboration with the CMU School of Design; Dr. Daniel Rosenberg Muñoz)
- Morphing Everyday Sounds: Development of sound morphing tool that produce psychoacustically informed morphs using machine learning methods (Collaboration with the CMU Computer Science department; Dr. Chris Donahue)
- Misophonia: Investigating pupil response to disgusting everyday sounds and videos for misophonic and non-misophonic people.

PI: Dr. Heather Burte

Roles: Graduate Assistant & Researcher

- Master's Thesis: Relationship between Perspective Taking with Space and People.
 - Investigating the potential shared representation and mechanism involved in spatial and social (e.g., theory of mind) cognitive processes.
 - R Scripts, figures, and manuscript available on GitHub.
- Assisted in formulation of discussion topics and experiments for a Human Cognitive Processes course as part of a Presidential Transformational Teaching Grant project.
- Involved in recruitment, management, training and evaluations of research assistants.

Human Brain Processes During Complex Locomotor Navigation, Texas A&M University

2021 - 2022

PI: Dr. Andrew Nordin & Dr. Heather Burte

Roles: Graduate Researcher

- The project focused on developing a synchronized mobile EEG and eye tracking system to research brain processes during complex locomotor navigation.
- Learned to operate gait (human motion) research hardware & software (Motek) and analysis pipeline.
- Directed and trained 3 undergraduate research assistants to develop experiments using the Python programming language and the Psychopy package.
- Involved in the recruitment process of research assistants.

Britt Lab, University of Waterloo

2018 - 2020

PI: Dr. Britt Anderson

Roles: Research Assistant, Undergraduate Researcher

- Undergraduate Thesis: Mental Model Updating and Pupil Response.
 - Designed and conducted research on pupillary response to belief updating.
 - Programmed computerized eye tracking task using Python and the psychopy library.
 - Self-driven to learn how to program (R & Python) and use the Linux computing environment.
 - Took initiative to self-learn and use niche eye-tracking and monitor hardware.
 - R & Python codes, and manuscript available on GitHub.
- Assisted in two projects that contributed to Master's theses.

PUBLICATION

- **Park. S.**, Ferguson. A. J., Rosenberg. D. M., Heller. L., (*In-preparation*). Lateral position discrimination using wavefield synthesis in an open environment to test the effect of observer-controlled motion on the ventriloquist effect. *Auditory Perception & Cognition*.
- Qiu. Y., **Park. S.**, Oszczapinska. U., Heller. L., (*In-review*). Visual Disgust Constricts Pupils in Response to Misophonic Movies. *Frontiers in Psychology*.
- Oszczapinska. U., **Park. S.**, Qiu. Y., Nance. B., Julien. M., Heller. L., (2025). The impact of disgusting sounds on pupil diameter of misophonic and non-misophonic listeners. *Psychophysiology*.
- **Park. S.**, Watanabe. B., Burte. H., (2022). Perspective taking and reference frames for spatial and social cognition. *Paper submitted to the CogSci 2022 Annual Conference*.

PRESENTATION

- Ferguson. A. J., **Park. S.**, Rosenberg. D. M., Heller. L., (2025, Accepted). Lateral position discrimination using wavefield synthesis in an open environment to test the effect of observer-controlled motion on the ventriloquist effect. *Poster presented at the joint 188th Meeting of the Acoustical Society of America and 25th International Congress on Acoustics in New Orleans. Louisiana.*
- Henderson M. H., Luo. A. F., **Park. S.**, Tarr. M. J., Wehbe. L. (2025). Generative modeling tools for characterizing human higher visual cortex *Poster presented at the Cognitive Neuroscience Society 2025 Annual Meeting*.

- Heller. L., Ferguson. A. J., **Park. S.**, Rosenberg. D. (2024). Naturalistic multimodal spatial interactions. *Talk presented at the 23rd Annual Auditory Perception, Cognition, & Action Meeting.*
- **Park. S.**, Watanabe. B., Burte. H., (2022). Is Mentalizing Related to Spatial Perspective-Taking? *Poster presented at the Psychonomic Society 2022 Annual Meeting*.
- **Park. S.**, Watanabe. B., Burte. H., (2022). Perspective taking and reference frames for spatial and social cognition. *Poster presented to the CogSci 2022 Annual Conference*.
- Nutalapati. N., Raina. Y., Watanabe. B., **Park. S.**, & Burte. H., (2022). How well do you know your campus? A pilot study examining the relationship between anxiety and spatial ability. *Poster presented at the Texas A&M University Student Research Week* 2022.
- **Park. S.**, Watanabe. B., Burte. H., (2021). Individual Differences in Perspective Taking for Spatial And Social Cognition. *Poster presented at the Psychonomic Society 2021 Annual Meeting.*
- **Park. S.**, Watanabe. B., Burte. H., (2021). Reference Frames for Spatial and Social Thinking: Individual Differences in Strategy Use. *Poster presented at the SPATIAL COGNITION 2020/1 Conference*.
- **Park. S.**, Watanabe. B., Burte. H., (2021). Being good at taking people's spatial perspective might not necessarily mean you are good at "taking their perspective". *Poster presented at the Texas A&M University Psychological and Brain Sciences: 2nd Year (Ph. D) Poster Session 2021.*
- Deshpande. T., **Park. S.**, Burte. H., (2021). Pointing North Online: Using photographs of known environments to evaluate north pointing accuracy. *Poster presented at the CogSci 2021 Annual Conference*.
- **Park. S.**, Anderson. B., (2020). Mental Model Updating and Pupil Response. *Poster presented at the Virtual Psychonomics* 2020 Annual Meeting.

LEARNING EXPERIENCE

Summer 2021 Computational Neuroscience, Neuromatch Academy

Fall 2021 Basic Training Course on Gait Analysis and Research with the M-Gait, Motek

TEACHING EXPERIENCE

Texas A&M University

2021 - 2022

Graduate Teaching Assistant, 4 Semesters

 Assisted and instructed labs for undergraduate psychology statistics, research methods, and scientific writing courses.

Lab Trainer, 3 Semesters

- Trained, up to 9, undergraduate research assistants per semester in a research lab on how to use R and RStudio.
- Students learned to produce descriptive statistics, visualizations, and conduct correlation, t-tests, and ANOVA tests.

SKILLS

Programming: R, Python, C++

Software & Tools: Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, CLI, git, Remote tools (i.e., ssh, rsync, etc...), SPSS, Microsoft Office, Qualtrics, Language Linux, Language

fMRI: FSL, fmriprep, pycortex, freesurfer

Statistics: Regression (linear, generalized, multiple, hierarchical), Mixed Effects Model,

Correlation, t-test, ANOVA, Descriptive Statistics, contrast analysis

Hardware: Eye Tracking: SR Research EyeLink 1000 Plus, CRS ltd. LiveTrack, SmartEye Aurora

Gait Tracking: Motek M-Gait

Languages: English, Korean