

JANGKYU JU

Ph.D. Student in Computer Science
School of Interactive Computing, Georgia Institute of Technology

jjju39@gatech.edu
[Google Scholar](#) | [Webpage](#) | [LinkedIn](#)

RESEARCH INTERESTS

Human-AI Interaction, AI Interface Design, Information Visualization, Trust in AI-Enabled Systems, Cognitive Science

EDUCATION

Atlanta, GA 2026 - Present	Georgia Institute of Technology Ph.D. in Computer Science, School of Interactive Computing, College of Computing Advisor: Dr. Cindy Xiong Bearfield
Seoul, Korea 2021 - 2023	Korea University M.S. in Behavioral and Cognitive Neuroscience, School of Psychology (GPA: 4.5/4.5) Advisor: Dr. Yang-Seok Cho
2015 - 2021	B.A. in Psychology and Business Administration (Double Major) GPA: 4.09/4.5 Dean's List
Toronto, ON 2019	University of Toronto Exchange Student, Department of Psychology

RESEARCH & PROFESSIONAL EXPERIENCE

Atlanta, GA 2026 - Present	Georgia Institute of Technology Graduate Student Researcher GT Visualization Lab Advisor: Cindy Xiong Bearfield Research on human-AI interaction and AI interface design, with a focus on how information visualization choices shape people's cognition, perception, and trust when interacting with AI systems
Seoul, Korea 2025 - 2026	Hyundai Motor Group Data Scientist Data Insight Team, ICT Division - Cross-domain data analysis (e.g., vehicle, customer, sales, production), metrics development, dashboard visualization - Optimization and automation of ML models and data pipelines for scalable deployment
2023 - 2025	Research Engineer Infotainment Development Center, Advanced Vehicle Platform (AVP) Division - Large-scale in-vehicle infotainment (IVI) data analysis for modeling user behavior and metrics development - Machine Learning model and Human-Machine Interface design for personalized IVI recommendation systems
Seoul, Korea 2021 - 2023	Korea University Graduate Student Researcher Human Performance Lab, School of Psychology Advisor: Yang-Seok Cho - Visual complexity of automotive head-up displays and attentional tunneling in driving - Exploration for reward information in modulating Value-Driven Attentional Capture (VDAC) - Computational simulation of associative learning models in VDAC
2020	Research Assistant Human Performance Lab, School of Psychology Behavioral experiments (keypress, mouse-tracking, neuroimaging), statistical analysis
Seoul, Korea 2019	L'Oréal Korea Data Analyst Intern Human Resources Company-wide data analysis to support HR and operations decisions

PUBLICATIONS

* denotes co-first authorship

1. Lee, J.*, Lee, N.*, **Ju, J.***, Chae, J., Park, J., Ryu, H. S., & Cho, Y. S. (2024). Visual complexity of head-up display in automobiles modulates attentional tunneling. *Human Factors*, 66(7), 1879-1892.
<https://doi.org/10.1177/00187208231181496>
2. **Ju, J.**, Lee, E., & Park, S. (2024). Comparative analysis of ensemble machine learning models for personalized in-vehicle infotainment recommendation systems. *Adjunct Proceedings of the 16th International Conference on Automotive User Interfaces and Interactive Vehicular Applications*, 45-50.
<https://doi.org/10.1145/3641308.3685021>
3. **Ju, J.**, & Cho, Y. S. (2023). The modulation of value-driven attentional capture by exploration for reward information. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 49(2), 181-197.
<https://doi.org/10.1037/xlm0001189>
4. Jeong, J. H., **Ju, J.**, Kim, S., Choi, J. S., & Cho, Y. S. (2023). Value-driven attention and associative learning models: A computational simulation analysis. *Psychonomic Bulletin & Review*, 30(5), 1689-1706.
<https://doi.org/10.3758/s13423-023-02296-0>

CONFERENCE & WORKSHOP PRESENTATIONS

1. **Ju, J.**, Lee, E., & Park, S. (2024). Comparative analysis of ensemble machine learning models for personalized in-vehicle infotainment recommendation systems. Poster presented at the 16th International Conference on Automotive User Interfaces and Interactive Vehicular Applications, Stanford, USA.
2. **Ju, J.**, & Cho, Y. S. (2022). Distinctive effects of predictiveness and uncertainty of reward in value-driven attentional capture. Poster presented at the 63rd Annual Meeting of the Psychonomic Society, Boston, USA.
3. Lee, J., Lee, N., **Ju, J.**, Chae, J., Park, J., Ryu, H. S., & Cho, Y. S. (2022). Simple is the best! Visual complexity of head-up display in automobiles modulates attentional tunneling and driving performance. Poster presented at the 13th International Conference of the Applied Human Factors and Ergonomics, New York, USA.
4. **Ju, J.**, & Cho, Y. S. (2022). Impact of predictiveness and uncertainty of reward on value-driven attentional capture. Poster presented at the 2022 Annual Conference of the Korean Society of Cognitive and Biological Psychology, Virtual.
5. Lee, J., Lee, N., **Ju, J.**, Chae, J., Park, J., Ryu, H. S., & Cho, Y. S. (2022). Impact of visual complexity of head-up display on driving performance. Talk presented at the 2022 Annual Conference of the Korean Society of Cognitive and Biological Psychology, Virtual.
★ *Outstanding Presentation Award*
6. **Ju, J.**, & Cho, Y. S. (2021). Distinctive effects of entropy and variance of reward in value-driven attentional capture. Poster and video presented at the 62nd Annual Meeting of the Psychonomic Society, Virtual.
7. **Ju, J.**, & Cho, Y. S. (2021). Impact of reward information entropy and variance on value-driven attentional capture. Talk presented at the 2021 Annual Conference of the Korean Society of Cognitive and Biological Psychology, Virtual.

AWARDS & SCHOLARSHIPS

2021 - 2023	Scholarship for Graduate Researcher Brain Korea 21, Ministry of Education, Korea
2022	Outstanding Presentation Award Korean Society of Cognitive and Biological Psychology
2021	Award of Excellence & Scholarship (\$7,500) Research Challenger Program, Center for Teaching and Learning, Korea Univ.
2018	Dean's List Korea University
2018	Academic Excellence Award Korea University
2018 - 2020	Family Scholarship Korea University
2018 - 2020	Semester High Honors Korea University
2018	Army Commendation Medal (ARCOM) United States Army
2018	Certificate of Achievement (COA) United States Army
2018	Exemplary Soldier Award Republic of Korea Army

TEACHING EXPERIENCE

2021 **Teaching Assistant | User Experience and Psychology (PSYC493)**
Undergraduate course, School of Psychology, Korea University

Teaching Assistant | Emotion and Cognition (PSY414)
Graduate course, School of Psychology, Korea University

INVITED TALKS

Seoul, Korea **Cognitive Psychology and In-Vehicle Infotainment Systems**
2025 Invited Lecture | Psychological Research and Applications, School of Psychology, Korea University

Seoul, Korea **Cognitive Psychology and In-Vehicle Infotainment Systems**
2024 Invited Lecture | Psychological Research and Applications, School of Psychology, Korea University

Virtual **Cognitive Psychology and In-Vehicle Infotainment Systems**
2024 Invited Lecture | Cognitive Engineering, Department of Psychology, Chungbuk National University

SELECT SKILLS

1. **Data & Cloud:** Python, SQL, R; Apache Spark, Airflow; PostgreSQL/MySQL, BigQuery; Hadoop/HDFS, Kafka; AWS, GCP; Tableau, Qlik Sense, MicroStrategy, Metabase
2. **ML & MLOps:** Scikit-learn, TensorFlow, PyTorch, Keras; MLflow, Kubeflow, Docker, CI/CD
3. **Human-Subjects Research:** Behavioral task design and programming; Quantitative experimental design & analysis; Neuroimaging, Eye-tracking, Mouse-tracking
4. **Front-End & Web Integration:** HTML, CSS, JavaScript, React, Django; Figma; Unity 3D