SEOYOUNG AHN

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RESEARCH INTEREST

Vision, Attention, Computational modeling, Eye tracking

EDUCATION

PhD, Stony Brook University, State University of New York *Sept. 2018 - present*
Major in Cognitive Science (specializations in Vision)
Advisor: Gregory Zelinsky

MA, Seoul National University *Sept. 2016 – Aug. 2018*
Major in Psychology (specializations in Psycholinguistics)
Advisor: Sungryong Koh

BA, Seoul National University *Mar. 2011 - Aug. 2016*
Double major in Russian Language & Literature and Psychology
Advisor: Eunji Song, Sowon Hahn

PUBLICATIONS

Chakraborty, S., Wei, Z., Kelton, C., **Ahn, S**., Balasubramanian, A., Zelinsky, G. J., & Samaras, D. (2022). Predicting visual attention in graphic design documents. IEEE Transactions on Multimedia.

Ahn, S., Zelinsky, G., & Lupyan, G. (2021). Use of superordinate labels yields more robust and human-like visual representations in convolutional neural networks. Journal of Vision, 21(13), 1-19.

Chen, Y., Yang, Z., **Ahn, S.**, Samaras, D., Hoai, M., & Zelinsky, G. (2021). COCO-Search18 fixation dataset for predicting goal-directed attention control. Scientific reports, 11(1), 1-11.

Zelinsky, G. J., Chen, Y., **Ahn, S.**, & Adeli, H. (2020). Changing perspectives on goal-directed attention control: The past, present, and future of modeling fixations during visual search. *Psychology of Learning and Motivation*, pp. 231-286. Elsevier. 2020.

Ahn, S., Kelton, C., Balasubramanian, A., & Zelinsky, G. (2020). Towards Predicting Reading Comprehension From Gaze Behavior. In ACM Symposium on Eye Tracking Research and Applications (pp. 1-5).

Yang, Z., Huang, L., Chen, Y., Wei, Z., **Ahn, S.**, Zelinsky, G., Samaras, D. & Hoai, M.,(2020). Predicting Goal-directed Human Attention Using Inverse Reinforcement Learning. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (pp. 193-202).

Zelinsky, G., Yang, Z., Huang, L., Chen, Y., **Ahn, S.**, Wei, Z., & Hoai, M. (2019). Benchmarking Gaze Prediction for Categorical Visual Search. In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops

Kelton, C., Wei, Z.,**Ahn, S.**, Balasubramanian, A., Das, S. R., Samaras, D., & Zelinsky, G. (2019, June). Reading detection in real-time. In Proceedings of the 11th ACM Symposium on Eye Tracking Research & Applications (p. 43). ACM.

TALKS AND POSTER PRESENTATIONS

Ahn,S., Adeli, H., Zelinsky, G. (2022). Using Object Reconstruction as a Dynamic Attention Window to Improve Recognition Robustness. *Poster presented at the Annual Meeting of Vision Science Society (VSS), St. Pete Beach, FL. 2022*

Adeli, H., **Ahn,S.**, Zelinsky, G. (2022). A brain-inspired object-based attention network for multi-object recognition and visual reasoning. *Talk presented at the Annual Meeting of Vision Science Society (VSS), St. Pete Beach, FL. 2022*

Ahn,S., Adeli, H., Zelinsky, G. (2022). Reconstruction-as-feedback serves as an effective attention mechanism to increase recognition robustness. *Talk presented at the From Neuroscience to Artificially Intelligent Systems (NAISys), Cold Spring Harbor Laboratory, NY. 2022*

Adeli, H., **Ahn,S.**, Zelinsky, G. (2022). A brain-inspired object-based attention network for multi-object recognition and visual reasoning. *Talk presented at the From Neuroscience to Artificially Intelligent Systems (NAISys), Cold Spring Harbor Laboratory, NY. 2022*

Ahn, S., Zelinsky, G. J., Lupyan, G. (2020). Exploring the effects of linguistic labels on learned visual representations using convolutional neural networks. *Live talk presented at the Annual Meeting of Vision Science Society (VSS), St. Pete Beach, FL. 2020*

Ahn, S., & Zelinsky, G. J. (2019). Predicting Mental States from Eye Movements During Reading. Journal of Vision, 19(10), 127b-127b. *Poster presented at the Annual Meeting of Vision Science Society (VSS), St. Pete Beach, FL. 2019*

HONORS AND AWARDS

Mar. 2017	**Graduate Research Fellowship (2 year)**, Seoul National University
Feb. 2016	**Undergraduate Best Student Paper**, College of Social Science at Seoul National University
Sept. 2015	**Undergraduate Research Grant in Social Science**, College of Social Science at Seoul National University
Mar. 2011	**The Next Century Humanities Scholarship (4 year)**, Korean Student Aid Foundation (KOSAF)

ACADEMIC SERVICE

Organizational Member

· **GWISE Python'22**, Workshop on programming workshop for data analysis and visualization at GWISE (Graduate Women in Science and Engineering at Stony Brook University), 2022

Program Committee Member

· **Gaze'22**, Workshop on Gaze Estimation and Prediction in the Wild at CVPR, 2022
· **EduEye'22**, Workshop on Eye Tracking in Learning and Education at ETRA, 2022

Reviewer

· **MBCCV'19**: Workshop on Mutual Benefits of Cognitive and Computer Vision at CVPR, 2019

TEACHING

Fall 2020	**Statistics**, Lab Instructor, Stony Brook University
Summer 2020	**Research and Writing**, Instructor, Stony Brook University
Spring 2020	**Research and Writing**, Lab Instructor, Stony Brook University
Fall 2017	**Introduction to Psychology**, Teaching Assistant, Seoul National University
Spring 2017	**Introduction to Psychology**, Teaching Assistant, Seoul National University

SKILLS

Modeling and Analysis	Python, R, Matlab, and Mplus
Experiment	Eyelink , Eyelink 1000, Mobile Eye E-prime, Psychopy
Software Tools	MS Office, Latex
Language	Korean, English, Russian

REFERENCES

Dr. Gregory Zelinsky
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Dr. Sungryong Koh
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