

Eshed Margalit

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Education

Stanford University | 2016 - Present
PhD Candidate, Neurosciences Program

University of Southern California | 2012 - 2016
B.S. with Honors in **Computational Neuroscience**
Minor in **Computer Science**
Cumulative Major and Minor GPA: **3.99**

Research

Stanford NeuroAI Lab | 2016 - Present
Modeling structure and development of primate visual cortex
PI: Dr. Daniel Yamins

Stanford Vision and Perception Neuroscience Lab | 2016 - Present
Characterization of human higher visual cortex via ultra-high-resolution fMRI
PI: Dr. Kalanit Grill-Spector

USC Image Understanding Lab | 2014 – 2016
Interrogating object representations in visual cortex and psychophysical correlates of developmental prosopagnosia
PI: Dr. Irving Biederman

USC Emotion and Cognition Lab | 2013 – 2014
Investigating the role of the noradrenergic arousal system in aging and memory
PI: Dr. Mara Mather

Publications

Published

1. Clewett, D., Lee, T.H., Greening, S., Ponzio, A., **Margalit, E.**, & Mather, M. (2016). Neuromelanin marks the spot: Identifying a locus coeruleus biomarker of cognitive reserve in healthy aging. *Neurobiology of Aging*, 37, 117-126.

2. **Margalit, E.**, Shah, M.P., Tjan, B.S., Biederman, I., Keller, B., & Brenner, R. (2016). The lateral occipital complex shows no net response to object familiarity. *Journal of Vision*. *Journal of Vision*, 16(11).
3. **Margalit, E.**, Herald, S.B., Yue, X., von der Malsburg, C., & Biederman, I. (2016). An applet for the Gabor Scaling of the Differences Between Complex Stimuli. *Attention, Perception, & Psychophysics*, 78(8), 2298-2306.
4. **Margalit, E.**, Biederman, I., Tjan, B.S., and Shah, M.P. (2017) What is actually affected by the scrambling of objects when localizing the lateral occipital complex? *Journal of Cognitive Neuroscience*, 20(9), 1595 - 1604.
5. Biederman, I., Shilowich, B.E., Herald, S.B., **Margalit, E.**, Maarek, R., Meschke, E.X. and Hacker, C.M. (2018). The cognitive neuroscience of person identification. *Neuropsychologia*, 116B, 205-214.

Preprints

1. Kay, K.N., Jamison, K., Vizioli, L., Zhang, R., **Margalit, E.** and Ugurbil, K. (2018). A critical assessment of data quality and venous effects in ultra-high-resolution fMRI. *bioRxiv*.

Conference Presentations and Posters

Talks

1. **Margalit, E.**, Jamison, K., Weiner, K.S., Vizioli, L., Zhang, R., Kay, K.N. and Grill-Spector, K. (2016). Differential representation of object category information across lateral and medial ventral temporal cortex revealed with ultra-high-resolution fMRI. Presented at the Annual Meeting of the Society for Neuroscience, San Diego, CA. November.

Posters

1. Biederman, I., Herald, S. B., Xu, X., Amir, O., Shilowich B. E., & **Margalit, E.** (2015). Phonagnosia, a Voice Homologue to Prosopagnosia. Poster presented at the Annual Meeting of the Vision Sciences Society, St. Petersburg Beach, FL. May.
2. Clewett, D., Lee, T.H., Greening, S. G., Ponzio, A., **Margalit, E.**, & Mather M. (2015). Neuromelanin Marks the Spot: A Locus Coeruleus Substrate of Cognitive Reserve in Healthy Aging. USC Neuroscience Graduate Student Symposium, Los Angeles, CA. Jan.
3. Biederman, I., **Margalit, E.**, Tjan B.S., & Shah, M.P. (2016). What is actually affected by the scrambling of objects when localizing LOC? Presented at the Annual Meeting of the Vision Sciences Society, St. Petersburg Beach, FL. May.
4. **Margalit, E.**, Yue, X., & Biederman, I. (2016). Impaired Face and Non-face Discrimination in Developmental Prosopagnosics (DPs). Presented at the Annual Meeting of the Vision Sciences Society, St. Petersburg Beach, FL. May.

5. Irawan, I., **Margalit, E.**, Herald, S.B., & Biederman, I. (2016). Vertices are Effective in Perceptual Grouping (and Ungrouping). Presented at the Annual Meeting of the Vision Sciences Society, St. Petersburg Beach, FL. May.
6. Biederman, I., **Margalit, E.**, Tjan, B. S., & Shah, M. P. (2016). What is actually affected by the scrambling of objects when localizing LOC? Talk presented at the Annual Meeting of the Society of Experimental Psychologists. Columbia University, New York. April.
7. Biederman, I., **Margalit, E.**, Maarek, R., Meschke, E.X., Shilowich, B.E., Hacker, C.M., Juarez, J.J., Seamans, T.J. and Herald, S.B. (2017). What is the nature of the perceptual deficit in congenital prosopagnosia? Presented at the Annual Meeting of the Vision Sciences Society, St. Petersburg Beach, FL. May.
8. **Margalit, E.**, Lee, H., DiCarlo, J.J. and Yamins, D.L.K. (2018). Pinwheel-like Iso-Orientation Domains in a Convolutional Neural Network Model. Presented at the Annual Meeting of the Vision Sciences Society, St. Petersburg Beach, FL. May.

Skills

Programming

Python, MATLAB, Bash, R, C/C++, Java, Psychtoolbox, HTML/CSS/JS/React, Jupyter, Git, GitHub

Specialized Software

Tensorflow, FSL, Freesurfer, React/Redux

Methodologies

fMRI, Gabor-Jet modeling, Eye-tracking, Behavioral/Psychophysical research, Salivary Alpha Amylase Collection, Online surveys, Patch-clamp physiology, Spike Sorting

Awards and Grants

NSF Graduate Research Fellowship Program Fellow | 2016 – 2021

NSF fellowship recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines

Graduate Trainee, Stanford Mind, Brain, Computation, and Technology | 2018 – Present

NSF fellowship recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines

USC Neuroscience Outstanding Student of the Year | 2016

Awarded to USC's best neuroscience student with senior standing

Brian Philip Rakusin Neuroscience Award | 2015

Awarded to USC's best neuroscience student with sophomore or junior standing

USC Discovery Scholar | 2016

Awarded to students who excel in the classroom while demonstrating the ability to create exceptional new scholarship

USC Provost's Undergraduate Research Fellowship | 2013-2016

Five-time recipient of award established to provide support to student researchers

USC SOAR (Student Opportunities for Academic Research) Grant | 2015

Grant supporting undergraduate research with a faculty mentor

USC Dean's Scholarship | 2012-Present

Merit-based tuition scholarship

George H. Mayr Scholarship Foundation | 2015

Awarded to outstanding students from California in the college of letters, arts, and sciences

USC University Trustees Award | 2016

Awarded for highest GPA among undergraduate males at the University

Phi Beta Kappa Honor Society | 2015

Teaching

Teaching Assistant, Introduction to Perception (PSYCH 30) | Fall 2017, 2018

Teaching Assistant, Stanford Intensive Neuroscience (SIN) Bootcamp | Fall 2017

Instructor, Stanford Splash

Instructor, Stanford Brain Day

Service

Chair, SfN Nanosymposium: Extrastriate Vision | 2018

Student Representative, Stanford Neurosciences PhD Program Student Program Committee | 2018

Mentor and workshop leader, for NSF GRFP Application | 2017 – 2018

Student Speaker Representative, Stanford Neurosciences PhD Program | 2017 – 2018

Mentor, Stanford Biosciences Student Association | 2017 - 2018

Student Representative, USC Undergraduate Neuroscience Executive Committee | 2015 - 2016

Team Captain, USC Cross Country Club | 2014-2015

Mentor to undergraduate lab members: Jordan Juarez, Isabel Irawan, Emily Meschke, and Rafael Maarek