

# Shawn T. Schwartz, M.S., M.A.

Cognitive Neuroscientist, Data Scientist, Software Developer  
[stschwartz@stanford.edu](mailto:stschwartz@stanford.edu) | [shawnts.com](http://shawnts.com) | [github: @shawntz](https://github.com/shawntz)

---

## Education

### Stanford University (2021 - present)

Ph.D. in Psychology – Ric Weiland Graduate Fellow

- Advisor: Anthony D. Wagner

M.A. in Psychology, September 2023

### University of California, Los Angeles (2015 - 2021)

M.S. in Biology, September 2021

Thesis: *Automated High-Throughput Organismal Image Segmentation Using Deep Learning for Massive Phenotypic Analysis*

- Advisor: Michael E. Alfaro

B.S. in Cognitive Science, June 2019

- Specialization in Computing; Departmental Highest Honors; Advisor: Alan D. Castel

B.S. in Biology, June 2019

- Specialization in Computing; Departmental Honors; Advisor: Michael E. Alfaro

## Academic Positions

### Stanford University

- Resident Drop-In Statistics Consultant, Psychology Department (2023 - present)
- Doctoral Candidate, Department of Psychology, Wu Tsai Neurosciences Institute, Stanford Memory Lab (2021 – present)

## Research Support

### Wu Tsai Human Performance Alliance, Stanford University (\$200,000)

*Mitigating effects of attentional lapses and stereotype threat to improve performance*

PI Sponsor: Anthony Wagner

April 2022 - present

## Honors and Awards

- *October 2024* | Ric Weiland Graduate Fellowship, Stanford University (\$4,000)
- *February 2024* | Stanford University Wu Tsai Neurosciences Institute MBCT Travel Grant (\$1,000)
- *November 2022* | Stanford University Wu Tsai Neurosciences Institute MBCT Travel Grant (\$1,500)
- *June 2022* | Norman H. Anderson Research Grant, Stanford Psychology (\$2,000)
- *September 2021* | Horizon Prize for Education, Royal Society of Chemistry
- *June 2021* | Sigma Xi Scientific Honor Society
- *June 2021* | CIRTL Scholar Certification, UCLA Center for the Integration of Research, Teaching, & Learning
- *May 2021* | 2nd Place, UCLA Ecology and Evolutionary Biology 24th Annual Research Symposium
- *March 2021* | Honorable Mention, National Science Foundation Graduate Research Fellowship Program
- *November 2020* | J. Frank Yates Student Conference Diversity & Inclusion Award, Psychonomic Society (\$1,000)
- *February 2020* | UCLA Institute for Digital Research and Education Early Career Research Day Best Poster Award
- *June 2019* | Chancellor's Service Award, UCLA
- *June 2019* | Timothy Chheang Memorial Scholarship Award, UCLA Psychology (\$1,000)
- *June 2019* | Highest Departmental Honors, UCLA Psychology
- *June 2019* | Departmental Honors, UCLA Ecology and Evolutionary Biology
- *May 2019* | Dean's Prize Nominee for Excellence in Undergraduate Faculty-Mentored Research, UCLA College of L&S

## Professional Memberships

Cognitive Neuroscience Society, Society for Neuroscience, Sigma Xi Scientific Honor Society, Psychonomic Society, American Psychological Association, Association for Psychological Science

## Peer Review

- Ad Hoc Referee: *Memory*; *PLOS Computational Biology*

## Review Committees

- 2022/2024 | Application Reader, Neuroscience Area Ph.D. Admissions, Stanford Psychology
- 2020/2021 | Association for Psychological Science Student Research Award
- April 2020 | Mathematics & Computer Sciences Subject-Expert Judge, Los Angeles County Science and Engineering Fair

## Leadership Positions at Stanford

- 2022 - present | Member, Diversity, Inclusion, Belonging, Equity and Justice (DIBEJ) Committee, Stanford Wu Tsai Neurosciences Institute
- 2022 - present | Member, Statistics Committee, Stanford Psychology
- October 2023 | Lead Event Co-organizer, Paths to PhD Workshop, Stanford Psychology
- August 2023 | Lead Organizer, Bay Area Memory Meeting (BAMM!), Stanford University
- June 2023 | Co-organizer, MBCT Research Symposium, Wu Tsai Neurosciences Institute, Stanford University
- 2023 - 2024 | Member, FriSem (Cog/Neuro Area Friday Seminar) Organizing Committee, Stanford Psychology
- October 2022 | Event Webinar & Panel Moderator, Paths to PhD Workshop, Stanford Psychology
- January 2022 - August 2022 | Lead Co-organizer & Program Representative, Neuroscience Undergraduate Research Opportunity for Community College Students (NeURO-CC) Program, DIBEJ Committee, Wu Tsai Neurosciences Institute, Stanford University
- 2022 - 2024 | Member, Diversity Committee, Stanford Psychology
- 2022 - 2024 | Lead Organizer of Inclusive Syllabi Committee, Stanford Psychology
- 2022 - 2024 | Member, Student Advisory Committee, Center for Mind, Brain, Computation and Technology, Stanford Wu Tsai Neurosciences Institute
- 2021 - 2022 | First-Year Graduate Student Representative, Stanford Psychology

## Professional Development

- 2022 - present | Member, Center for Mind, Brain, Computation and Technology (MBCT), Stanford Wu Tsai Neurosciences Institute
- 2019 - 2021 | CIRTL Scholar, UCLA Center for the Integration of Research, Teaching, and Learning

## Professional Technical Experience

### UCLA College of Letters and Science

- Research Associate and Software Developer (January 2018 - September 2021)

### UCLA Marketing

- Front-End Web Developer (Freelance/Contract) (May 2020 - August 2020)
- Full-Stack Web Developer (12 hrs/wk) (January 2016 – May 2019)

### UCLA Health

- Data Analyst Intern (16 hrs/wk) (August 2017 – September 2018)

## Technical Skills

### ▪ Programming Languages:

expert level: R Python MATLAB Bash

proficient level: PHP C++ C# JavaScript HTML CSS SQL

### ▪ Data Analysis Tools: tidyverse ggplot2 lme4 regex Pandas NumPy SciPy

### ▪ Machine Learning/Computer Vision: scikit-learn TensorFlow OpenCV image segmentation object detection object classification multivariate pattern classification

### ▪ Virtual Reality: Unity + HP Reverb G2 (Omnicept) VR Headset with Physio Senors

### ▪ Neuroimaging and Ocular Assays of Cognition: Scalp EEG (EGI 128-/256-channel Geodesic Sensor Nets), Eye-Tracking/Pupillometry (SR Research EyeLink 1000 Plus, Tobii Pro Nano), and fMRI Data Acquisition (GE SIGNA 3T MRI); Structural/Functional MRI & EEG preprocessing and analysis (FSL, fMRIPrep, Nilearn, EEGLAB, MNE)

### ▪ Statistical Analysis Methods: model comparison, linear mixed effects modeling, frequentist and Bayesian linear and logistic regression, analysis of variance, correlation, chi-square, principal component analysis (PCA), exploratory and confirmatory factor analysis, Bayes factor, k-fold cross validation, non-parametric bootstrapping and resampling methods, multidimensional scaling, t-SNE, partitional K-means & hierarchical clustering

### ▪ Data Collection:

online: (3,800+ subjects on CloudResearch and Prolific platforms)

on-site: (2,000+ subjects using PsychoPy, jsPsych, and Psychtoolbox experiments)

fMRI: (160+ hours of data collection experience)

## Published Open Source Software Packages

**Schwartz, S. T.** (2021). `sashimi`: A toolkit for facilitating high-throughput organismal image segmentation using deep learning.

`python` `deep learning` `semantic recognition & segmentation` `computer vision`

- [github://shawntschwartz/sashimi](https://github.com/shawntschwartz/sashimi)
- [zenodo://doi.org/10.5281/zenodo.5353752](https://zenodo.org/doi/10.5281/zenodo.5353752)
- [paper://doi.org/10.1111/2041-210X.13712](https://paper://doi.org/10.1111/2041-210X.13712)

**Schwartz, S. T.**, He, M., Yang, H., Xue, A. M., & Wagner, A. D. (2024, beta). `eyeris`: Create and run flexible and reproducible pupillometry preprocessing pipelines. `R package` `pupillometry` `preprocessing` `pipeline`

- [github://shawntz/eyeris](https://github.com/shawntz/eyeris)

**Schwartz, S. T.** (2024, beta). `charisma`: Automated classification of discrete color categories in images. `R package`

`image analysis` `color analysis`

- [github://shawntz/charisma](https://github.com/shawntz/charisma)

**Schwartz, S. T.** (dev). `visualeyes`: A tool for automatically generating visual playback movies of eye-tracking, pupillometry, and behavioral data from task-based psychology experiments. `python` `utility` `eye-tracking` `pupillometry` `psychology`

- [github://shawntz/visualeyes](https://github.com/shawntz/visualeyes)

## Publications

222 citations, h-index: 10, i10-index: 10 (Google Scholar)

\* Denotes Equal Contribution

### Manuscripts Under Review

- Aczel, B.\*, Szaszi, B.\*, Clelland, H. T., Kovacs, M., Schulz-Kümpel, H., Holzmeister, F., Nilsonne, G., Hoffmann, S., Kosa, L., Torma, Z. A., [...], Poldrack, R. A., [...], **Schwartz, S. T.**, [...], Wagenmakers, E.-J., [...], Nosek, B. A. Investigating the analytical robustness of the social and behavioural sciences. (under review, *Nature*).
  - Contributed (*Formal Analysis, Validation, and Writing - Review & Editing*) to a large-scale re-analysis of 100 findings published between 2009 and 2018; project managed by the Center for Open Science (COS)

### Peer-Reviewed Journal Articles

<https://www.ncbi.nlm.nih.gov/myncbi/shawn.schwartz.1/bibliography/public/>

1. Dang, J., Lin, B., Yuan, J., **Schwartz, S. T.**, Shah, R. M., & Garg, N. K. (2018). Smart access to 3D structures. *Nature Reviews Chemistry*, 2(7), 95-96. [doi.org/10.1038/s41570-018-0021-y](https://doi.org/10.1038/s41570-018-0021-y)
  - 2021 Royal Society of Chemistry Horizon Prize for Education — For the creation of innovative chemical education resources that benefit how students, children, and the general public learn organic chemistry
2. Alfaro, M. E., Karan, E. A., **Schwartz, S. T.**, & Shultz, A. J. (2019). The evolution of color pattern in butterflyfishes (Chaetodontidae). *Integrative and Comparative Biology*, 59(3), 604-615. [doi.org/10.1093/icb/icz119](https://doi.org/10.1093/icb/icz119)
3. **Schwartz, S. T.**, Siegel, A. L. M., & Castel, A. D. (2020). Strategic encoding and enhanced memory for positive value-location associations. *Memory & Cognition*, 48(6), 1015-1031. [doi.org/10.3758/s13421-020-01034-4](https://doi.org/10.3758/s13421-020-01034-4)
4. Whatley, M. C., Siegel, A. L. M., **Schwartz, S. T.**, Silaj, K. M., & Castel, A. D. (2020). Younger and older adults' mood and expectations regarding aging during COVID-19. *Gerontology and Geriatric Medicine*, 6, 1-9. [doi.org/10.1177/2333721420960259](https://doi.org/10.1177/2333721420960259)
5. Silaj, K. M., **Schwartz, S. T.**, Siegel, A. L. M., & Castel, A. D. (2021). Test anxiety and metacognitive performance in the classroom. *Educational Psychology Review*, 33(4), 1809-1834. [doi.org/10.1007/s10648-021-09598-6](https://doi.org/10.1007/s10648-021-09598-6)
6. Siegel, A. L. M., **Schwartz, S. T.**, & Castel, A. D. (2021). Selective memory disrupted in intra-modal dual-task encoding conditions. *Memory & Cognition*, 49(7), 1453-1472. [doi.org/10.3758/s13421-021-01166-1](https://doi.org/10.3758/s13421-021-01166-1)
7. Snedden, C. E.\*, Makanani, S. K.\*, **Schwartz, S. T.**, Gamble, A., Blakey, R. V., Borremans, B., Helman, S. K., Espericueta, L., Valencia, A., Endo, A., Alfaro, M. E., & Lloyd-Smith, J. O. (2021). SARS-CoV-2: Cross-scale insights from ecology and evolution. *Trends in Microbiology*, 29(7), 593-605. [doi.org/10.1016/j.tim.2021.03.013](https://doi.org/10.1016/j.tim.2021.03.013)
8. **Schwartz, S. T.**, & Alfaro, M. E. (2021). `Sashimi`: A toolkit for facilitating high-throughput organismal image segmentation using deep learning. *Methods in Ecology and Evolution*, 12(12), 2341-2354. [doi.org/10.1111/2041-210X.13712](https://doi.org/10.1111/2041-210X.13712)
9. Silaj, K. M., **Schwartz, S. T.**, Castel, A. D., & McDonough, I. M. (2021). Is the future bright or bleak? Assessing past and future outlooks across the adult lifespan. *Gerontology and Geriatric Medicine*, 7, 1-10. [doi.org/10.1177/23337214211046080](https://doi.org/10.1177/23337214211046080)

10. Murphy, D. H., Silaj, K. M., **Schwartz, S. T.**, Rhodes, M. G., & Castel, A. D. (2022). An own-race bias in the categorisation and recall of associative information. *Memory*, 30(2), 190-205. [doi.org/10.1080/09658211.2021.1999982](https://doi.org/10.1080/09658211.2021.1999982)
11. Murphy, D. H., **Schwartz, S. T.**, & Castel, A. D. (2022). Serial and strategic memory processes in goal-directed selective remembering. *Cognition*, 225, 1-17. [doi.org/10.1016/j.cognition.2022.105178](https://doi.org/10.1016/j.cognition.2022.105178)
12. **Schwartz, S. T.**, Siegel, A. L. M., Eich, T. S., & Castel, A. D. (2023). Value-directed memory selectivity relies on goal-directed knowledge of value structure prior to encoding in young and older adults. *Psychology and Aging*, 38(1), 30-48. [doi.org/10.1037/pag0000720](https://doi.org/10.1037/pag0000720)
13. Richmond, L. L., Kearley, J., **Schwartz, S. T.**, & Hargis, M. B. (2023). Take a load off: Examining partial and complete cognitive offloading of medication information. *Cognitive Research: Principles and Implications*, 8(1), 12, 1-19. [doi.org/10.1186/s41235-023-00468-z](https://doi.org/10.1186/s41235-023-00468-z)
  - *Stage I Registered Report In-Principle Acceptance (2021)*
14. Murphy, D. H., **Schwartz, S. T.**, & Castel, A. D. (2023). Value-directed retrieval: The effects of divided attention at encoding and retrieval on memory selectivity and retrieval dynamics. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 1-22. [doi.org/10.1037/xlm0001264](https://doi.org/10.1037/xlm0001264)
15. Whatley, M. C., **Schwartz, S. T.**, Block, J. B., & Castel, A. D. (2023). Memory, metamemory, and false memory for features of the Apple logo. *Applied Cognitive Psychology*, 1-15. [doi.org/10.1002/acp.4088](https://doi.org/10.1002/acp.4088)
16. Murphy, D. H., **Schwartz, S. T.**, Alberts, K. O., Siegel, A. L. M., Carone, B. J., Castel, A. D., & Drolet, A. (2023). Clinically studied or clinically proven? Memory for claims in print advertisements. *Applied Cognitive Psychology*, 1-9. [doi.org/10.1002/acp.4106](https://doi.org/10.1002/acp.4106)

## Talks

‡ Denotes Trainee; \* Denotes Equal Contribution

### As Speaker

1. **Schwartz, S. T.** *Risks and rewards: Memory for positive and negative item-location associations*. Highest Departmental Honors Thesis Seminar, UCLA Department of Psychology. May 1, 2019.
2. **Schwartz, S. T.** *High-throughput phenoscoping with deep learning for large-scale analyses of color pattern diversity*. UCLA Department of Ecology & Evolutionary Biology EcoEvoPub Seminar Series. March 12, 2020.
  - *Presentation cancelled due to COVID-19 lockdowns*
3. **Schwartz, S. T.\***, Siegel, A. L. M.\*, & Castel, A. D. *Selective memory disrupted in intra-modal dual-task encoding conditions*. (Virtual) Bay Area Memory Meeting (BAMM!), Stanford University. November 12, 2020.
4. **Schwartz, S. T.\***, Silaj, K. M.\*, Brar, N. K.‡, & Castel, A. D. *Anxiety, preparedness, and students' perceptions of remote learning effectiveness during COVID-19*. CogFog, Bjork Learning and Forgetting Lab. December 11, 2020.
5. **Schwartz, S. T.**, Tsai, W. L. E., Karan, E. A., & Alfaro, M. E. *Charisma: An R tool to automatically determine discrete color classes for high-throughput color pattern analysis*. Society for Integrative and Comparative Biology Virtual Annual Meeting. January 3, 2021.
6. **Schwartz, S. T.** *College students' anxiety, preparedness, and perceptions of remote learning effectiveness during COVID-19: A classroom study*. National Center for the Integration of Research, Teaching and Learning Network Teaching-as-Research Conference. April 15, 2021.
7. **Schwartz, S. T.** *Leveraging signals of preparatory sustained attention to optimize episodic memory precision*. Cognitive and Neuroscience Friday Seminar, Stanford Department of Psychology. October 7, 2022.
8. **Schwartz, S. T.\***, & Miller, D. S.\* *Tonic Attentional influences on memory retrieval in young and older adults*. Cognitive and Neuroscience Friday Seminar, Stanford Department of Psychology. May 19, 2023.
9. **Schwartz, S. T.** *Leveraging pupillometric signals of preparatory sustained attention to optimize episodic memory retrieval in real-time*. Inaugural Center for Mind, Brain, Computation and Technology (MBCT)/NeuroTech Community Science Share Out, Stanford Wu Tsai Neurosciences Institute. June 5, 2023.
10. **Schwartz, S. T.**, Nguyen, K. K.‡, Yang, H., deBettencourt, M. T., Tran, T. T., Madore, K. P., & Wagner, A. D. *Real-time reorienting of preparatory sustained attention lapsing during episodic retrieval using closed-loop pupillometry*. 31st Annual Meeting of the Cognitive Neuroscience Society, Toronto, Ontario, Canada. April 13, 2024.
11. **Schwartz, S. T.** *Real-time reorienting of preparatory sustained attention lapsing during episodic retrieval using closed-loop pupillometry* 2nd Annual Center for Mind, Brain, Computation and Technology (MBCT)/NeuroTech Community Science Share Out, Stanford Wu Tsai Neurosciences Institute. June 3, 2024.

### As Collaborator

1. Brar, N. K.‡, **Schwartz, S. T.**, Silaj, K. M., & Castel, A. D. *A classroom study: Student attitudes and anxiety during a pandemic*. 30th Annual UCLA Psychology Undergraduate Research Conference. May 14, 2021.

2. Brar, N. K.‡, **Schwartz, S. T.**, Silaj, K. M., & Castel, A. D. *A classroom study: Student attitudes and anxiety during a pandemic*. UCLA Undergraduate Research & Creativity Showcase. May 25, 2021.
3. Weller, H. I., **Schwartz, S. T.**, Karan, E. A., & Lord, N. P. *Recolorize: a flexible R package for color classification*. Society for Integrative and Comparative Biology Virtual Annual Meeting. January 3, 2021.
4. Karan, E. A.\*, **Schwartz, S. T.\***, Perillo, M.‡, & Alfaro, M. E. *It's not just a phase: Evolutionary and functional consequences of sexually dimorphic color pattern diversity in Labrid fishes*. Society for Integrative and Comparative Biology Virtual Annual Meeting. January 3, 2021.
5. Karan, E. A.\*, **Schwartz, S. T.\***, Perillo, M.‡, & Alfaro, M. E. *Evolutionary and functional consequences of sexually dimorphic color pattern diversity in Labrid fishes*. UCLA Department of Ecology & Evolutionary Biology EcoEvoPub Seminar Series. January 14, 2021.

## Conference Posters

‡ Denotes Trainee; \* Denotes Equal Contribution

### As Speaker

1. **Schwartz, S. T.**, Siegel, A. L. M., & Castel, A. D. *Memory for positive and negative item-location associations*. Whittier College's 17th Annual Psi Chi Psychology Undergraduate Research Conference, Whittier, CA, USA. May 4, 2019.
2. **Schwartz, S. T.**, Siegel, A. L. M., & Castel, A. D. *Risks and rewards: Memory for positive and negative item-location associations*. 28th Annual UCLA Psychology Undergraduate Research Conference. May 10, 2019.
3. **Schwartz, S. T.**, Siegel, A. L. M., & Castel, A. D. *Risks and rewards: Memory for positive and negative item-location associations*. 22nd Annual UCLA Undergraduate Research Poster Day. May 21, 2019.
  - UCLA Dean's Research Prize Nominee
4. **Schwartz, S. T.**, Karan, E. A., & Alfaro, M. E. *Using machine learning to quantify color pattern diversity in Butterflyfishes (Chaetodontidae)*. 22nd Annual UCLA Biology Research Symposium. May 22, 2019.
5. Whatley, M. C.\*, **Schwartz, S. T.\***, Block, J. B., Siegel, A. L. M., & Castel, A. D. *One bad apple: Visual memory and misinformation for the Apple logo*. 60th Annual Meeting of the Psychonomic Society, Montréal, Quebec, Canada. November 15, 2019.
6. Siegel, A. L. M.\*, **Schwartz, S. T.\***, & Castel, A. D. *Memory and metamemory for the location of items: The effects of information importance and encoding difficulty*. 60th Annual Meeting of the Psychonomic Society, Montréal, Quebec, Canada. November 16, 2019.
7. **Schwartz, S. T.**, & Alfaro, M. E. *High-throughput phenoscoping using deep learning for accurate automatic instance segmentation of fish images*. UCLA Institute for Digital Research & Education Early Career Researcher Day. November 20, 2019.
  - Awarded 1 of 4 Best Poster Awards of 40 posters
8. Silaj, K. M.\*, **Schwartz, S. T.\***, Siegel, A. L. M., & Castel, A. D. *Test anxiety and metacognitive performance in the classroom*. 2020 UC Psychology Teaching & Learning Virtual Conference. September 18, 2020.
9. **Schwartz, S. T.\***, Silaj, K. M.\*, Siegel, A. L. M., & Castel, A. D. *Examining the effects of test anxiety on metacognitive performance*. 61st Annual (Virtual) Meeting of the Psychonomic Society. November 21, 2020.
  - J. Frank Yates Student Conference Award recipient for supporting diversity & inclusion in cognitive psychology
10. **Schwartz, S. T.**, & Alfaro, M. E. *Sashimi: Automatic high-throughput pipeline for organismal image segmentation using deep learning*. Society for Integrative and Comparative Biology Annual (Virtual) Meeting. January 3, 2021.
11. **Schwartz, S. T.**, Siegel, A. L. M., & Castel, A. D. *Burgers over broccoli: Enhanced visuospatial memory for high-calorie foods*. 62nd Annual (Virtual) Meeting of the Psychonomic Society. November 5, 2021.
12. **Schwartz, S. T.**, Madore, K. P., & Wagner, A. D. *Readiness-to-remember: On the relationship between recognition memory, recollection precision, and moment-to-moment fluctuations in preparatory sustained attention*. 51st Annual Meeting of the Society for Neuroscience, San Diego, CA, USA. November 13, 2022.
13. **Schwartz, S. T.**, Nguyen, K. K.‡, Madore, K. P., & Wagner, A. D. *Leveraging signals of sustained attention and cognitive control to optimize episodic memory performance*. Wu Tsai Human Performance Alliance Research Symposium, Stanford, CA, USA. March 1, 2023.
14. Miller, D. S.\*, **Schwartz, S. T.\***, Tran, T. T., Rathmann-Bloch, J. E.‡, Park, J.‡, Romero, A.‡, Sheng, J., Yang, H., Mormino, E. C., & Wagner, A. D. *Effects of spontaneous lapses of attention on goal representation and episodic memory retrieval*. 52nd Annual Meeting of the Society for Neuroscience, Washington, DC, USA. November 14, 2023.
15. **Schwartz, S. T.\***, Miller, D. S.\*, Tran, T. T., Rathmann-Bloch, J. E.‡, Park, J.‡, Romero, A.‡, Vossler, H.‡, Sheng, J., Yang, H., Winer, J. R., Mormino, E. C., & Wagner, A. D. *Effects of attention, goal representation, and amyloid burden on episodic retrieval in cognitively unimpaired older adults*. 52nd Annual Meeting of the Society for Neuroscience, Washington, DC, USA. November 14, 2023.
16. **Schwartz, S. T.**, Nguyen, K. K.‡, Yang, H., deBettencourt, M. T., Tran, T. T., Madore, K. P., & Wagner, A. D. *Real-time reorienting of preparatory sustained attention lapsing during episodic retrieval using closed-loop pupillometry*. 31st Annual Meeting of the Cognitive Neuroscience Society, Toronto, Ontario, Canada. April 15, 2024.

## As Collaborator

1. Siegel, A. L. M., **Schwartz, S. T.**, & Castel, A. D. *Age-related differences in local and global metacognitive accuracy in a visuospatial selectivity task*. Accepted to be presented at the Cognitive Aging Conference, Atlanta, GA, USA. April 16, 2020.
  - Presentation cancelled due to COVID-19 lockdowns
2. Siegel, A. L. M.\*, **Schwartz, S. T.\***, & Castel, A. D. *Selective memory disrupted in intra-modal dual-task encoding conditions*. 61st Annual (Virtual) Meeting of the Psychonomic Society. November 19, 2020.
3. Perillo, M.‡\*, **Schwartz, S. T.\***, & Alfaro, M. E. *Geographical relationships of coral reef fish color pattern geometry and speciation rates*. 24th Annual UCLA Biology Research Symposium. May 26, 2021.
  - Awarded 2nd Place for Best Poster
4. Tran, T. T., Madore, K. P., Hsu, S. C., **Schwartz, S. T.**, & Wagner, A. D. *Lapses in attention predict memory variability in younger and older adults*. 29th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA, USA. April 24, 2022.
5. Tuli, A.‡\*, Bhardwaj, N.‡\*, **Schwartz, S. T.**, Harrison, M. B., & Wagner, A. D. *Exploring the role of discrete vs. continuous perceptual context shifts during encoding on episodic memory*. Stanford University PsychSummer 2022 Poster Session. August 18, 2022.
6. Bhardwaj, N.‡\*, Tuli, A.‡\*, **Schwartz, S. T.**, Harrison, M. B., & Wagner, A. D. *Exploring the role of discrete vs. continuous perceptual context shifts during encoding on episodic memory*. Stanford University Symbolic Systems 2022 Summer Research Fair. October 10, 2022.
7. Kearley, J. R., Richmond, L. L., **Schwartz, S. T.**, & Hargis, M. B. *Take a load off: Examining partial and complete cognitive offloading of medication information*. 63rd Annual Meeting of the Psychonomic Society, Boston, MA, USA. November 19, 2022.
8. Romero, A.‡, Tran, T. T., **Schwartz, S. T.**, Miller, D. S., Rathmann-Bloch, J. E.‡, Park, J.‡, Winer, J., Trelle, A. N., Mormino, E. C., & Wagner, A. D. *Decreased sustained attention predicts memory variability in clinically unimpaired older adults*. 10th Annual Stanford School of Medicine Neuroscience Forum. May 5, 2023.
9. Rathmann-Bloch, J. E.‡, Harrison, M. B., Tran, T. T., **Schwartz, S. T.**, Pashin, K. P.‡, Ruck, T. M.‡, & Wagner, A. D. *The experience of memory: How eye movements inform the relationship between memory accuracy and retrieval confidence*. 26th Annual Association for Scientific Study of Consciousness Conference, New York, NY, USA. June 22, 2023.
10. Park, J.‡\*, Rathmann-Bloch, J. E.‡\*, Subbulakshmi, S., **Schwartz, S. T.**, Miller, D. S., Tran, T. T., Romero, A.‡, Vossler, H.‡, Trelle, A. N., Mormino, E. C., & Wagner, A. D. *Effects of white matter integrity and amyloid- $\beta$  on episodic delayed recall performance in cognitively unimpaired older adults*. 52nd Annual Meeting of the Society for Neuroscience, Washington, DC, USA. November 14, 2023.
11. Subbulakshmi, S., Romero, A.‡, Rathmann-Bloch, J. E.‡, Park, J.‡, **Schwartz, S. T.**, Miller, D. S., Tran, T. T., Vossler, H.‡, Trelle, A. N., Mormino, E. C., & Wagner, A. D. *Effects of white matter integrity and amyloid- $\beta$  on sustained attention in cognitively unimpaired older adults*. 52nd Annual Meeting of the Society for Neuroscience, Washington, DC, USA. November 14, 2023.
12. Romero, A.‡, Winer, J. R., Tran, T. T., Rathmann-Bloch, J. E.‡, Park, J.‡, **Schwartz, S. T.**, Miller, D. S., Anders, D., Morales, A., Wilson, E. N., Trelle, A. N., Andreasson, K. I., Davidzon, G. A., Mormino, E. C., & Wagner, A. D. *Tau and Amyloid associations with sustained attention and episodic memory performance in clinically unimpaired older adults*. 16th Annual Human Amyloid Imaging Conference, Miami, FL, USA. January 17, 2024.

## Selected Press Coverage of Research

- ["Neil Garg, UCLA students, his daughters win Royal Society of Chemistry Horizon Prize"](#) in *UCLA Newsroom*, by Wolpert, S. (2021, November 23).
- ["Winner: 2021 Horizon Prize for Education"](#) in *Royal Society of Chemistry News*, by Royal Society of Chemistry. (2021, November 23).
- ["2021 Royal Society of Chemistry Horizon Prize for Education"](#) in *UCLA Chemistry & Biochemistry News*, by Jennings, P. (2021, November 23).
- ["Early Career Research Day winner improves neural network training for biological research"](#) in *UCLA Institute for Digital Research & Education*, by Ventura, K. (2020, July 1).
- ["Student-developed tool brings 3D molecular models to smartphone screen"](#) in *The Daily Bruin*, by Nakahara, E. (2018, July 30).

## Teaching Experience

### Guest Lectures (x7)

- May 2, 2019 | *Quantitative Approaches to Studying Color Pattern Evolution*, Claremont McKenna College, W. M. Keck Science Center Department of Biology
- March 3, 2020 | *Special Topics in Machine Learning*, EEB C177/C234, UCLA
- June 6, 2023 | *Memory Across the Lifespan*, PSYCH 45, Stanford University
- October 27, 2023 | *Programming Mindset: Emotion Regulation Strategies for Effective Coding*, PSYCH 10/STATS 60, Stanford University
- December 8, 2023 | *Broader Methodological Trends in Psychological Science*, PSYCH 10/STATS 60, Stanford University
- March 14, 2024 | *Studying Causal Mechanisms of Memory and Cognition Using Closed-Loop Bioengineering*, PSYCH 252, Stanford University

- June 4, 2024 | *Memory Across the Lifespan*, PSYCH 45, Stanford University

### *As Head Teaching Assistant (x5)*

#### **Stanford University**

Introduction to Statistical Methods: Precalculus (PSYCH 10/STATS 60/160)

- Fall 2023 | Instructor: Prof. Judy Fan
- Fall 2024 | Instructor: Prof. Judy Fan

Introduction to Learning and Memory (PSYCH 45)

- Spring 2023 | Instructor: Prof. Anthony Wagner
- Spring 2024 | Instructor: Prof. Anthony Wagner
- Spring 2025 | Instructor: Prof. Anthony Wagner

### *As Teaching Assistant (x13)*

#### **Stanford University**

Introduction to Statistical Methods: Precalculus (PSYCH 10/STATS 60/160)

- Winter 2023 | Instructor: Prof. Russ Poldrack

Statistical Methods for Behavioral and Social Sciences (PSYCH 252)

- Winter 2024 | Instructor: Prof. Tobi Gerstenberg

#### **UCLA**

Research Methods in Psychology (PSYCH 100B)

- Summer Session A 2020 | Instructor: Prof. Iris Firstenberg
- Fall 2020 | Instructor: Dr. Amber Ankowski
- Summer Session A 2021 | Instructor: Prof. Iris Firstenberg
- Summer Session C 2021 | Instructor: Prof. Iris Firstenberg

Laboratory in Cognitive Psychology (PSYCH 121)

- Summer Session A 2021 | Instructor: Prof. Alan Castel

Biology and Social Justice (EE BIOL 156)

- Fall 2019 | Instructor: Prof. Michael Alfaro
- Summer Session C 2020 | Instructor: Prof. Michael Alfaro
- Winter 2021 | Instructor: Prof. Michael Alfaro

Practical Computing for Evolutionary Biologists and Ecologists (EE BIOL C177/C234)

- Winter 2020 | Instructor: Prof. Michael Alfaro

Evolutionary Medicine (EE BIOL 185)

- Spring 2020 | Instructors: Prof. Pamela Yeh & Dr. Tyler McCraney
- Spring 2021 | Instructors: Prof. Pamela Yeh & Dr. Rachel Prunier

### *Professional Development Workshops/Courses (x3)*

- September 2019 | Technical Assistant, Introduction to R for Ecology and Evolutionary Biology (EE BIOL 201)
  - Instructors: Profs. Michael Alfaro, Jamie Lloyd-Smith, Noah Pinter-Wollman, & Kirk Lohmueller
- September 2022 | Assistant Instructor, Statistics, R, & Python Bootcamp for Incoming First-Year Psychology Ph.D. Students, Stanford Psychology
- September 2023 | Lead Instructor, Statistics, R, & Python Bootcamp for Incoming First-Year Ph.D. Students, Stanford Psychology

### **Mentorship Experience**

- 2023 - present | Primary Supervisor of 2 Full-Time Social Sciences Research Coordinators, Stanford Memory Lab
- 2022/2024 | Supervisor, Stanford Symbolic Systems Summer Internship Program
- 2022 | Supervisor, Stanford Psych-Summer Research Program
- 2021 - 2022 | Research Advisor/Mentor for AP Research Course at Leland High School, San Jose, CA
- February 2020 | Volunteer High School Teacher, Splash@UCLA

### *Selected Undergraduate Students/RAs*

- Ira Thawornbut (Stanford) July 2024 - present
- Natalie Wang (Stanford) January 2024 - present

- Gloria Cheng (Stanford) August 2023 - present
- Khanh Nguyen (Stanford) January 2023 - present
- Jen Park (Stanford) February 2022 - present
- America Romero (Stanford) October 2021 - July 2024 → Now Psych Ph.D. Student with Brice Kuhl at U of Oregon
- Julia Rathmann-Bloch (Stanford) September 2021 - September 2023 → Now Psych Ph.D. Student at U of Cambridge
- Nikita Bhardwaj (Stanford) June 2022 - August 2022 → Now Senior Undergrad at Stanford
- Aditi Tuli (Stanford) June 2022 - August 2022 → Now Senior Undergrad at Stanford
- Kasey Luo (Stanford) January 2022 - June 2022 → Now Software Engineer at Google
- Amy Lo (Stanford) January 2022 - June 2022 → Now Computer Science M.S. Student at Stanford
- Ashley Chen (UCLA) July 2021 - July 2022 → Now Psych Ph.D. Student at UCLA
- Nimrat Brar (UCLA) May 2020 - September 2021 → Now Clinic Lab Assistant at UCLA Psychology Clinic
- Mackenzie Perillo (UCLA) May 2020 - September 2021 → Now Conservation Biologist at Pacific Whale Foundation
- Maya Chari (UCLA) September 2019 - November 2020 → Now Bioinformatics M.S. Student at UCLA