

# Curriculum Vitae

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

Cognitive Neuroscientist, Data Scientist, Software Developer  
[stschwartz@stanford.edu](mailto:stschwartz@stanford.edu) | [shawnschwartz.com](http://shawnschwartz.com) | [@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 Sensors

### **▪ Neuroimaging and Ocular Assays of Cognition:** Scalp EEG (EGI 128-/256-channel Geodesic Sensor Nets), Eye-Tracking/Pupilometry (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/record/5353752)
- [paper://doi.org/10.1111/2041-210X.13712](https://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

<sup>#</sup> 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 phenoscaping 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

<sup>‡</sup> 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 phenoscaping 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-β 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-β 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