


# ORHAN SOYUHHOS

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## EDUCATION

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- University of California - Davis, United States** Sep 2022–Present  
*Ph.D. candidate, Psychology*  
Designated Emphasis in Neuroengineering | Grade: 3.97/4.0
- University of Trento, Italy** Sep 2019–Mar 2022  
*M.Sc., Cognitive Science*  
Track: Cognitive Neuroscience | Grade: 110/110
- Bogazici University, Turkey** Sep 2014–Jan 2019  
*B.A., Philosophy*  
Grade: 3.29/4.0 | Honors student

## RESEARCH EXPERIENCE

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- Graduate Researcher** | *Cognitive Control Lab, UC Davis* Aug 2023–Present  
Mentor: Xiaomo Chen, Ph.D  
Project 1: *Selective modulation of neuronal dynamics in the frontal eye field during parietal inactivation.*  
Project 2: *Meaning-based attention in non-human primates during free-viewing of naturalistic scenes.*
- Research Assistant** | *Attention Network Group, CIMeC* Apr 2022–Aug 2022  
Mentor: Daniel Baldauf, Ph.D  
Project: *Intrinsic fMRI and MEG connectivity profiles of the face vs. scene processing networks.*
- Research Intern** | *Attention Network Group, CIMeC* Mar 2021–Mar 2022  
Mentor: Daniel Baldauf, Ph.D  
Project: *Frequency-specific functional couplings of the frontal eye field vs. inferior frontal junction.*
- Research Intern** | *Donders Institute for Brain, Cognition, and Behaviour* Nov 2020–Feb 2021  
Mentor: Yağmur Güçlütürk, Ph.D  
Project: *Naturalistic video reconstruction from fMRI activity by leveraging eye-tracking.*

## TEACHING EXPERIENCE




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- Teaching Assistant** | *University of California - Davis* 5 quarters  
Psychology of Emotion (PSC 154 - Winter 2023)  
Neurobiology (NPB 110B - Winter 2025)  
Cognitive Neuroscience (PSC 135 - Fall 2025 & Winter 2026)  
Human Learning & Memory (PSC 130 - Spring 2026)


## PUBLICATIONS

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### Peer-reviewed publications

- Soyuhos, O.**, Zirnsak, M., Chaudhuri, R., & Chen, X. (2026). Selective control of prefrontal neural timescales by parietal cortex. *Nature Communications*, 17, 3687. 
- Soyuhos, O.**, Scarpa, A., & Baldauf, D. (2026). Distinct resting-state connectomes for face and scene perception predict individual task performance. *Human Brain Mapping*, 47(5), e70498. 
- Soyuhos, O.** & Baldauf, D. (2023). Functional connectivity fingerprints of the frontal eye field and inferior frontal junction suggest spatial versus nonspatial processing in the prefrontal cortex. *European Journal of Neuroscience*, 57(7), 1114–1140. 

## Manuscripts under review

4. **Soyuhos, O.**, Hayes, T. R., Hu, W., Hamel, T. P., Sevak, B., Henderson, J. M., & Chen, X. (2026). Meaning-based guidance of attention in rhesus monkeys during naturalistic scene viewing. *bioRxiv*, 2026-03. 

## CONFERENCE PRESENTATIONS

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1. **Soyuhos, O.**, Hayes, T. R., Hamel, T. P., Sevak, B., Hu, W., Henderson, J. M., & Chen, X. (2025). Meaning-based attentional guidance in macaques while viewing naturalistic scenes. Poster presented at the Society for Neuroscience (SFN) annual meeting, San Diego, CA, USA.
2. Sevak, B., Hu, W., **Soyuhos, O.**, & Chen, X. (2025). Temporal dynamics and functional specialization of frontal oculomotor neurons. Poster presented at the Society for Neuroscience (SFN) annual meeting, San Diego, CA, USA.
3. **Soyuhos, O.**, Hayes, T. R., Hamel, T. P., Sevak, B., Hu, W., Henderson, J. M., & Chen, X. (2025). Experience shapes naturalistic attentional control in non-human primates. Poster presented at the Bay Area Memory Meeting (BAMM), Davis, CA, USA.
4. **Soyuhos, O.**, Zirnsak, M., Moore, T., Chaudhuri, R., & Chen, X. (2025). Selective control of prefrontal timescales and attentional modulation by parietal cortex. Poster presented at the Annual Research Symposium of the Center for Neuroengineering and Medicine, Davis, CA, USA.
5. **Soyuhos, O.**, Zirnsak, M., Moore, T., Chaudhuri, R., & Chen, X. (2024). Posterior parietal inactivation alters intrinsic neural timescales and attentional processing in frontal eye field neurons. Talk given at the Bay Area Vision Research Day (BAVRD), Berkeley, CA, USA.
6. **Soyuhos, O.**, Zirnsak, M., Moore, T., Chaudhuri, R., & Chen, X. (2023). Inactivation of parietal cortex neurons increases the intrinsic timescales of the frontal eye field. Poster presented at the Society for Neuroscience (SFN) annual meeting, Washington, D.C., USA.
7. Scarpa, A., **Soyuhos, O.**, & Baldauf, D. (2023). fMRI and MEG connectivity analyses of face- and scene-selective brain areas. Poster presented at the Rovereto Attention Workshop (RAW), Rovereto, Italy.
8. Baldauf, D., Bedini, M., Olivetti, E., Avesani, P., & **Soyuhos, O.** (2023). ‘What’ and ‘where’ pathways within prefrontal cortex govern top-down attentional control through their differential connectivity fingerprints. Poster presented at the Salzburg Annual Meeting on Brain Activity (SAMBA), Salzburg, Austria.
9. **Soyuhos, O.** & Baldauf, D. (2022). Functional connectivity fingerprints of frontal eye field and inferior frontal junction. Poster presented at the Vision Sciences Society (VSS) annual meeting, Online, USA.

## GRANTS & FELLOWSHIPS

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UC Davis Victor and Meg Chan Graduate Student Award (\$2k)	2026
UC Davis Summer Research Fellowship (\$6k)	2026
UC Davis Graduate Student Association Travel Award (\$1k)	2025
National Science Foundation Research Training NeuralStorm Fellowship (\$55k)	2023–2024
Research Assistant Fellowship at CIMeC funded by the Fondazione Caritro (\$2.5k)	2022
Erasmus+ Internship Grant (\$4k)	2020–2021
Italian Ministry of Foreign Affairs and International Cooperation (MAECI) (\$12k)	2019–2021
Erasmus+ Study Grant (\$2k)	2017
Mehmet Zorlu Foundation Success Scholarship (\$16k)	2014–2019

## TECHNICAL SKILLS

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**Programming Languages:** Python, MATLAB, and R.




**Research Methods:** Psychophysics, Eye-Tracking, EEG, fMRI, Signal Processing, Time-Series Analysis, Machine Learning, and Computational Modelling.

**Experimental & Analysis Tools:** Psychtoolbox, EEGLAB, FieldTrip, Brainstorm, and AFNI.

**Scientific Computing:** PyTorch, Scikit-learn, Pandas, NumPy, SciPy, and Tidyverse.

**Data Visualization:** Matplotlib, Seaborn, ggplot2, and Adobe Illustrator.

**Selected Certifications:**

Deep Learning Specialization (DeepLearning.AI) 	Dec 2020
Machine Learning (Stanford Online) 	Mar 2018
Intro to CS and Programming Using Python (MITx) 	Nov 2016