

Alessandro “Ollie” D’Amico

Ph.D. Candidate

Cognitive Neuroscientist | Neural Engineer | Data Scientist | Game Developer

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Awards and Fellowships

University of California, Berkeley IMPRINT Scholar	2026-2027
University of California President’s Dissertation Year Fellowship	2025-2026
Halicioğlu Data Science Institute Data Planet Fellowship	2022-2024
Sanford Institute for Empathy and Compassion Fellowship	2022-2025
San Diego Fellowship	2020-2025

Courses Instructed and Developed*

COGS 189: Brain Computer Interfaces	2025 <i>Summer</i>
<ul style="list-style-type: none">• Created novel hands-on programming assignments• Taught students machine learning and signal processing in Python	
COGS 179*: Electrophysiology of Cognition (Lab)	2024 <i>Spring</i>
<ul style="list-style-type: none">• Built an EEG lab classroom from scratch• Created hands-on labs for students to collect EEG data• Supported by a UCSD CDIIP grant	
COGS 189*: Brain Computer Interfaces (Lab)	2023 <i>Winter</i>
<ul style="list-style-type: none">• Independently petitioned the department to purchase new EEG equipment• Class EEG lab has now served 600+ students and is still operational	
COGS 189: Brain Computer Interfaces	2023 <i>Winter</i>
<ul style="list-style-type: none">• Advanced to candidacy early to be the instructor for this course• Created hands-on signal processing & machine learning assignments• Course served 175 in person; YouTube lectures have served thousands	

Teaching Assistantships

Department of Cognitive Science Methods Training Assistant	2020-2026
<ul style="list-style-type: none">Specialties: statistics, machine learning, study design, EEG acquisition	
COGS 108: Data Science in Practice	2025 <i>Spring</i>
COGS 189: Brain Computer Interfaces (Head TA) (https://github.com/desa-lab/cogs189wi22)	2022 <i>Winter</i>
COGS 109: Modeling and Data Analysis (Head TA)	2021 <i>Spring</i>
COGS 189: Brain Computer Interfaces (Head TA) (https://github.com/desa-lab/cogs189wi21)	2021 <i>Winter</i>
COGS 189: Brain Computer Interfaces (Head TA) (https://github.com/cogs189wi20/cogs189wi20)	2020 <i>Winter</i>
COGS 189: Brain Computer Interfaces (Head TA) (https://github.com/cogs189wi19/cogs189wi19)	2019 <i>Winter</i>

Education

Ph.D. Cognitive Science <i>University of California, San Diego</i> Primary Advisor: Virginia de Sa, Ph.D.	2020-2027
B.S. Cognitive Science with Specialization in Computation <i>University of California, San Diego</i>	2016-2018
A.S. Chemistry (<i>not conferred</i>) <i>Grossmont College</i>	2013-2016

Research Experience

Co-Founder & Chief Science Officer <i>BCI Buddy</i> <ul style="list-style-type: none">Created materials to teach kids programming & neurotechnologyDeveloped real-time ExG analysis pipelines and classifiers	2025-2026
Project Coordinator <i>de Sa Lab (UCSD)</i> Primary Advisor: Virginia de Sa, Ph.D.	2018-2020

Project Coordinator 2015-2019
Center for Understanding and Treating Anxiety (SDSU)
Primary Advisor: Nader Amir, Ph.D.

Guest Lectures and Workshops

CogSci Ph.D. Bootcamp; Scientific Programming Workshop	2025 Summer
COGS 108: Data Science in Practice; discussant on LLMs	2025 Spring
UC Love Data Week	2025 Winter
CogSci Ph.D. Bootcamp; Scientific Programming Workshop	2024 Summer
CogSci Methods Training Assistant Workshop: Microcontrollers	2023 Spring
Triton Neurotech EEG/P300 Collection Workshop	2023 Winter
CogSci Ph.D. Bootcamp; Scientific Programming Workshop	2023 Summer
Forefront of Neurotech Research	2022 Fall
Triton Neurotech Neuroscience Workshop	2022 Summer
CogSci Ph.D. Bootcamp; Scientific Programming Workshop	2022 Summer
Forefront of Neurotech Research	2021 Spring
CogSci Ph.D. Bootcamp; Scientific Programming Workshop	2021 Summer
COGS 189: Brain Computer Interfaces	2020 Winter
COGS 179: Electrophysiology of Cognition	2019 Fall
COGS 189: Brain Computer Interfaces	2019 Fall

Grants Submitted (received in bold)

Sony Faculty Innovation Award	2025
University of California President's Dissertation Year Fellowship	2025
CDIIP Course Development (COGS 179L/189L)	2023
HDSI Data Planet Fellowship	2022
Sony Faculty Innovation Award	2022

MathWorks Microgrant	2022
Microsoft Fellowship (UCSD nominee)	2022
Sanford Center for Empathy and Technology Seed Grant (EEG)	2022
CDIIP Course Development (COGS 189L)	2022
Kavli Institute for Brain & Mind Innovative Research Grant	2022
NSF Graduate Research Fellowship	2021
Sony Research Award Program	2021
Sanford Center for Empathy and Technology Seed Grant (EEG)	2021
CDIIP Course Development (COGS 89)	2021
Kavli Institute for Brain & Mind Innovative Research Grant	2021
Sanford Center for Empathy and Technology Seed Grant (CV + Pain)	2020
Sanford Center for Empathy and Technology Seed Grant (EEG)	2020
Sanford Center for Empathy and Compassion (EEG + Racial Empathy)	2020

Publications

In Preparation

D'Amico, A., de Sa, V. R. 202X
 Within Subject ERP Differences between Traditional Task and Simple Video Game.

Published

D'Amico, A., de Sa, V. R. 2026 *Feb.*
 Comparing Simultaneous Scalp EEG Recordings from the OpenBCI Cyton and Brain Products BrainAmp. *Sensors*, 26(4), 1153.
<https://doi.org/10.3390/s26041153>

D'Amico, A. & Rizq, C., Truel, A. & Faybishenko, J., Suk Lee, M., Kim, J-H., Cauwenberghs, G. & de Sa, V. R. 2024 *Jul.*

Development and Characterization of Zinc Dry Electrodes for Wearable Electrophysiology. In *2024 46th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)*.

- D'Amico, A.**, de Sa, V. R. 2022 Jul.
Set Size Effects on the P3b in a BCI Speller. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 44, No. 44, 3608-3614).
- D'Amico, A.**, de Sa, V. R. 2021 Jun.
Parallel Spelling using P300 and Feedback Response. Poster presented at the 2021 meeting of the *BCI Society*, Virtual.
- D'Amico, A.**, Ma, T., Wu, Z., de Sa, V. R. 2019 Dec.
Spelling in Parallel: A P300 and Feedback Based Approach. Poster presented at the 2019 *IEEE EMBS Symposium and Workshop*, San Diego, CA.
- Amir, N., **D'Amico, A.**, Meissel, E. 2019 Jul.
Discussant. In Jeremy Pettit (Chair) Recent Developments in Attention Biases and Attention Bias Modification in Pediatric Anxiety. Symposium conducted at the 2019 9th *World Congress of Behavioural & Cognitive Therapies*, Berlin, DE
- Meissel, E., **D'Amico, A.**, McGhie, S., Montero, M., Amir, N. 2018 Apr.
Specificity of an Adaptive Attention Control and Attention Bias Modification in Reducing Error Related Negativity. Symposium conducted at the 2018 Annual Convention for the *Anxiety and Depression Association of America*, Washington, D.C.
- McGhie, S., Meissel, E., **D'Amico, A.**, Amir, N. 2018 Apr.
Examining the Relationship Between ERN in Adolescents and Their Mothers. Poster presented at the 2018 annual convention for the *Anxiety and Depression Association of America*, Washington, D.C.
- Nhan, L., Higgins, M., McGhie, S., **D'Amico, A.**, Meissel, E., Amir, N. 2018 Mar.
Examining the Relationship Between Feedback Negativity and Depression using Time-Frequency Analysis. Poster presented at the 2018 annual Student Research Symposium, San Diego State University, San Diego, CA.

- Amir, N., Shyrock, I., **D'Amico, A.** 2017 Nov.
 Application of Novel Processing Stream to Tradition Probe Detection Task: Reliability and Validity in Clinical Practice. In N. Amir (Chair) Toward the Clinical Application of Cognitive Bias Modification: Addressing the Psychometric Properties of Measure. Symposium conducted at the 2017 Annual Convention of the Association for Behavioral and Cognitive Therapies, San Diego, CA.
- D'Amico, A.**, Amir, N. 2017 Nov.
 Obtaining Single Trial Biomarkers for the Online Assessment and Modification of Threat Sensitivity as Treatment of Anxiety Disorders. Poster presented at the 2017 Annual Convention of the Association for Behavioral and Cognitive Therapies, San Diego, CA.
- D'Amico, A.**, McGhie, S., Coronado, C., Wermes, R., Amir, N. 2017 Apr.
 Online Assessment and Modification of Threat Sensitivity as Treatment of Anxiety Disorders. Poster presented at the 2017 annual conference of Anxiety and Depression Association of America, San Francisco, CA.
- Amir, N., Carmona, A.R., McGhie, S., Montero, M., **D'Amico, A.**, Brown, I. 2016 Oct.
 Training attention toward positive information: Effects on Feedback Negativity. In N. Amir (Chair) Neuromarkers and Neuromodulation of Attention Bias Modification. Symposium conducted at the 2016 Annual Convention of the Association for Behavioral and Cognitive Therapies, New York, NY.
- McGhie, S., **D'Amico, A.**, Coronado, C., Amir, N. 2016 Oct.
 A Machine Learning Approach to Processing Errors. Poster presented at the 2016 annual convention for the *Association for Behavioral and Cognitive Therapies*, New York, NY.

Demonstrations and Science Outreach

- Cognition at the Shore 2025 Nov.
 Presentation on the technological utility of knots and rope across ancient and contemporary cultures and what they say about cognition.

Cognition at the Shore Presented on the origins, ubiquity, and research viability of games for cognitive science research.	2024 <i>May</i>
PsychoPy Contributor Code Sprint Met with creators and other contributors of PsychoPy at the University of Nottingham to further develop this open-source platform.	2023 <i>Jul.</i>
MathWorks Research & Curriculum Micro Symposium Developed (funded) project investigating EEG processing in an integrated MATLAB + Python environment. (Link to recording of talk).	2023 <i>May</i>
Triton Neurotech Banquet Demonstrated data collection with the OpenBCI Cyton.	2022 <i>May</i>
最强大脑 “ <i>Superbrain</i> ” International competitor in China’s most popular TV show which is a battle of the brains. The purpose of this show is to promote science.	2019 <i>Mar.</i>
Contextual Robotics Institute Forum: Healthcare Robotics Demonstrated simple BCIs to general audience.	2018 <i>Nov.</i>
9th Grade General Science, High Tech High Linda Vista Gave a lecture on introductory neuropsychology.	2018 <i>Nov.</i>
Ed-Funders Conference Live demonstration of a BCI for measuring learning engagement.	2018 <i>Oct.</i>

Students Mentored

Artemis Lopez	2025-2026
Joshua Caneday → Software engineer at Amazon	2024-2025
Emma Chen	2024-20XX
Cassia Rizq → Electrical engineer at Magic Leap	2023-2026
Milka Waniak → Ph.D. program at Stanford	2023-2024
Aidan Truel → Master’s program at Universität Zürich	2023-2024
Joelle Faybishenko → Master’s program at Universität Zürich	2023-2024

Yu-hsuan “Philip” Chi → Master’s program at UCSD	2023
Teng “Simon” Fei → Ph.D. program at UCSD	2022-2023
Linfeng Hu	2021
Colin Wageman → Data scientist	2021-2022
Xinmeng “Hermione” Xu → Ph.D. program at Duke	2020-2021
Tianyu Ma → Master’s program at USC	2019-2020
Zhijian Wu	2019-2020
Geeling Chau → Ph.D. program at Caltech	2019-2021
Ahmed Abdalsattar	2019-2020
Zhengyu “George” Wu	2019

Computational and Technical Skills

Languages: Python, GDScript, MATLAB, R, Object Pascal (FPC & Delphi), C

Frameworks: Pandas, scikit-learn, LMStudio, LSL, MNE, EEGLAB, ERPLAB, PsychoPy, Arduino

Other: Godot (game engine), OpenSCAD, Ableton Live, Audacity

GitHub: <https://github.com/oLLie-d>

Thingiverse: https://www.thingiverse.com/oLLie_d/designs

itch.io: <https://oLLie-d.itch.io>