Alessandro “Ollie” D’Amico

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Fellowships

2022	Sanford Compassion Fellowship
2020-2025	San Diego Fellowship

Education

2020-2025 Ph.D. Cognitive Science
UC San Diego, La Jolla, California, USA
Advisor: Virginia de Sa, Ph.D
Advanced to Candidacy: 24 October 2022

2016-2018 B.S. Cognitive Science with Specialization in Computation
UC San Diego, La Jolla, California, USA

2013-2016 A.S. Chemistry (*not conferred*)
Grossmont College, El Cajon, California, USA

Research Experience

2020-2025 Doctoral Candidate / Doctoral Student (2020-2022) / Graduate Student Researcher
de Sa Lab, Department of Cognitive Science
University of California, San Diego
Advisor: Virginia de Sa, Ph.D.

2018-2020 Project Coordinator / Lab Assistant (*February 2019 - September 2020*)
Volunteer Research Assistant (*January 2018 - February 2019*)
de Sa Lab, Department of Cognitive Science
Halıcıoğlu Data Science Institute
University of California, San Diego
Supervisor: Virginia de Sa, Ph.D.

2015-2019 Project Coordinator / Research Assistant (*August 2016 - August 2019*)
Volunteer Research Assistant (*May 2015 - August 2016*)
Center for Understanding and Treating Anxiety, Department of Psychology
San Diego State University
Supervisor: Nader Amir, Ph.D.

Teaching Experience

Associate-In (Instructor of Record)

2023 COGS 189: Brain Computer Interfaces (Winter)
Department of Cognitive Science, UC San Diego

Teaching Assistant

2022 COGS 189: Brain Computer Interfaces (Winter, Prof. Virginia de Sa)
Department of Cognitive Science, UC San Diego
(*https://github.com/desa-lab/cogs189wi22*)

2021 COGS 109: Modeling and Data Analysis (Spring, Prof. Eran Mukamel)
Department of Cognitive Science, UC San Diego

2021 COGS 189: Brain Computer Interfaces (Winter, Prof. Virginia de Sa)
Department of Cognitive Science, UC San Diego
(*https://github.com/desa-lab/cogs189wi21*)

2020 COGS 189: Brain Computer Interfaces (Winter, Prof. Virginia de Sa)
Department of Cognitive Science, UC San Diego
(*https://github.com/cogs189wi20/cogs189wi20*)

2019 COGS 189: Brain Computer Interfaces (Winter, Prof. Virginia de Sa)
Department of Cognitive Science, UC San Diego
(*https://github.com/cogs189wi19/cogs189wi19*)

Guest Lectures and Workshops

2022 Forefront of Neurotech Research (Fall)

2022 Triton Neurotech Neuroscience Workshop (Summer)

2022 CogSci Ph.D. Bootcamp; Scientific Programming Workshop (Summer)

2021 Forefront of Neurotech Research (Spring)

2021 CogSci Ph.D. Bootcamp; Scientific Programming Workshop (Summer)

2020 COGS 189: Brain Computer Interfaces (Winter, Prof. Virginia de Sa)

2019 COGS 179: Electrophysiology of Cognition (Fall, Prof. Seana Coulson)

2019 COGS 189: Brain Computer Interfaces (Winter, Prof. Virginia de Sa)

Grants Submitted (received in bold, pending in italics)

2022 *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 + Empathy)**

2022 CDIIP Course Development (COGS 189L)

2022 Kavli Institute for Brain & Mind Innovative Research Grant

2021 NSF Graduate Research Fellowship

2021 Sony Research Award Program

2021 Sanford Center for Empathy and Technology Seed Grant (EEG + Racial Empathy)

2021 CDIIP Course Development (COGS 89)

2021 Kavli Institute for Brain & Mind Innovative Research Grant

2020 **Sanford Center for Empathy and Technology Seed Grant (CV + Pain)**

2020 Sanford Center for Empathy and Technology Seed Grant (EEG + Racial Empathy)

2020 Sanford Center for Empathy and Compassion (EEG + Racial Empathy)

Publications

In Preparation

20XX **D'Amico, A.**, de Sa, V. R., *The Segment Speller: A Rapid, Spatially Independent BCI*

20XX Baer, K., Taboas, W., **D'Amico, A.**, Amir, N., *Ethnic Differences in the Relationship between the Error-Related Negativity and Anxiety*

Published

2022 **D'Amico, A.**, de Sa, V. R. (July)
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).

2021 **D'Amico, A.**, de Sa, V. R. (June)
Parallel Spelling using P300 and Feedback Response. Poster presented at the 2021 meeting of the *BCI Society*, Virtual.

2020 Cai, Y., **D'Amico, A.**, Wagner, J., Castellanos, J., Forster, D., Snider, J., de Sa, V. R., Chakravarthy., K. (January)
Thoracic Spinal Cord Stimulation Reduces Pain and Improves Locomotion in Parkinson Disease and Back Pain. Poster presented at the 2020 23rd Annual Meeting of the *North American Neuromodulation Society*, Las Vegas, NV.

2019 **D'Amico, A.**, Ma, T., Wu, Z., de Sa, V. R. (December)
Spelling in Parallel: A P300 and Feedback Based Approach. Poster presented at the 2019 *IEEE EMBS Symposium and Workshop*, San Diego, CA.

2019 Amir, N., **D'Amico, A.**, Meissel, E. (July)
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

2018 Meissel, E., **D'Amico, A.**, McGhie, S., Montero, M., Amir, N. (April)
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.

2018 McGhie, S.**,** Meissel, E., **D'Amico, A.**, Amir, N. (April)
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.

2018 Nhan, L., Higgins, M., McGhie, S., **D'Amico, A.**, Meissel, E., Amir, N. (March).
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.

2017 Amir, N., Shyrock, I., **D'Amico, A.** (November)
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.

2017 **D'Amico, A.**, Amir, N. (November)
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.

2017 **D'Amico, A.**, McGhie, S., Coronado, C., Wermes, R., Amir, N. (April)
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.

2016 Amir, N., Carmona, A.R., McGhie, S., Montero, M., **D'Amico, A.**, Brown, I. (October)
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.

2016 McGhie, S., **D'Amico, A.**, Coronado, C., Amir, N. (October)
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

2022 Triton Neurotech Banquet (May)
Demonstrated data collection pipeline of a novel EMG armband system utilizing penny electrodes and the OpenBCI Cyton. I am a graduate advisor of this organization and a project lead. The goal is to promote neurotechnology to the wide and diverse student body. San Diego, CA, USA

2019 最强大脑 "*Superbrain"* 2019 (March)
International competitor in China's most popular TV show which is a battle of the brains. The primary purpose of this show is to promote math and science to the general population. Nanjing, CN

2018 Contextual Robotics Institute Forum: Healthcare Robotics (November)
Using a Brain Computer Interface to articulate a simple robot using alpha waves. Similar frameworks could be used to create neuroprosthetics and other useful tools. San Diego, CA, USA.

2018 9th Grade General Science, High Tech High Linda Vista (November)
Gave a lecture on introductory neuropsychology, specifically neuroimaging, focusing on fMRI, MEG and EEG. Using the OpenBCI headset, I was able to show classes of freshman the future of neurotechnology with a live demonstration. San Diego, CA, USA.

2018 Ed-Funders Conference (October)
Live demonstration of a Brain Computer Interface capable of being utilized for relaxation and concentration classification in order to facilitate more productive learning. San Diego, CA, USA.

Students Mentored

2022-	Teng “Simon” Fei
2021	Linfeng Hu
2021-2022	Colin Wageman
2020-2021	Xinmeng “Hermione” Xu
2019-2020	Tianyu Ma
2019-2020	Zhijian Wu
2019-2021	Geeling Chau
2019-2020	Ahmed Abdalsattar
2019	Zhengyu “George” Wu
2016	Namrata Gawali

Computational and Technical Skills

Languages	Object Pascal, Python, MATLAB, R, GDScript, C
Toolboxes	LSL, EEGLAB, ERPLAB, BCILAB, PsychoPy, Arduino, scikit-learn
Other	OpenSCAD, Godot (game engine), Ableton Live, Photoshop, Google Docs suite
GitHub	https://github.com/ollie-d
Thingiverse	https://www.thingiverse.com/ollie_d/designs
itch.io	https://ollie-d.itch.io