

Alana Irene Darcher

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ACADEMIC EXPERIENCE

Current	M.Sc.	Graduate School of Systemic Neurosciences, Ludwig-Maximilians-Universität, Munich, Germany Thesis: Computational models of neural dynamics during human visual memory
Expected: 2/2020		
2016	B.Sc.	Emory University, Atlanta, Georgia, USA Neuroscience & Behavioral Biology, Philosophy
2012	A.A.S.	Clatsop Community College, Astoria, Oregon, USA General Science, Physics and Calculus concentration Graduated with high honors <i>Concurrent with high school enrollment</i>

PEER-REVIEWED PUBLICATIONS

Mascaro, J.S., Wehrmeyer, K., Mahathre, V., **Darcher, A.** A longitudinal, randomized and controlled study of app-delivered mindfulness in the workplace: Who practices, what are the benefits? *Under review.*

Evans, A. P., Mascaro, J. S., Kohn, J. N., Dobrusin, A., **Darcher, A.**, Starr, S. D., Craighead, L., Negi, L. T. (2019). Compassion Meditation Training for Emotional Numbing Symptoms Among Veterans with Post-Traumatic Stress Disorder. *The Journal of Alternative and Complementary Medicine*, 25(4), 441–443. doi: 10.1089/acm.2018.0425 [[PubMed](#)]

Mascaro, J. S., Rentscher, K. E., Hackett, P. D., Lori, A., **Darcher, A.**, Rilling, J. K., & Mehl, M. R. (2018). Preliminary evidence that androgen signaling is correlated with men's everyday language. *American Journal of Human Biology*, 30(4). doi: 10.1002/ajhb.23136 [[PubMed](#)]

Mascaro, J. S., Kelley, S., **Darcher, A.**, Negi, L. T., Worthman, C., Miller, A., & Raison, C. (2016). Meditation buffers medical student compassion from the deleterious effects of depression. *The Journal of Positive Psychology*, 13(2), 133–142. doi: 10.1080/17439760.2016.1233348 [[Link](#)]

Mascaro, J. S., **Darcher, A.**, Negi, L. T., & Raison, C. L. (2015). The neural mediators of kindness-based meditation: a theoretical model. *Frontiers in Psychology*, 6. doi: 10.3389/fpsyg.2015.00109 [[PubMed](#)]

HONORS AND AWARDS

2018-2019	Bernstein Network of Computational Neuroscience SMARTSTART 1 Fellowship [Link] - Funded mentorship and training program to promote young researchers in Computational Neuroscience studying in Germany
2015-2016	W.C. McWhorter Family Grant
2012-2016	Emory College Grant
2014-2016	Phi Sigma Tau Philosophy Honor Society Member, Emory University

2014	Collegiate Water Polo Association Scholar-Athlete Award
2012	All-Oregon Academic Team Member
2012	Coca-Cola Community College Academic Award and Scholarship
2012	All-USA Academic Team Member
2012	Phi Theta Kappa Honor Society Member, Clatsop Community College, Oregon, USA
2010-2012	Dean's List & Honor Roll, Clatsop Community College, Oregon, USA
2012	Valedictorian, Naselle Grays River High School, Washington, USA

CONFERENCE PRESENTATIONS, REPORTS, AND TALKS

Darcher, A. (2019, April). "Meditation as Medicine: Clinical Applications of Mindfulness Training." Invited speaker, Healthy Academia Lecture Series. Ludwig-Maximilians-University, Munich, Germany. Length: 45 min.

Wehrmeyer, K., Mahathre, V., **Darcher, A.**, Mascaro, J.S. (2017, Nov.) Examining the biopsychosocial predictors of mindfulness meditation practice in a workplace environment, American Public Health Association Annual Meeting & Expo, Atlanta, GA. [\[Link\]](#)

Mascaro, J.S., Haack, C., **Darcher, A.**, Wehrmeyer, K., Mahathre, V. (2017, May) Mindfulness Meditation for Healthcare Professionals, American College of Preventive Medicine Annual Meeting, Washington, DC.

Mascaro, J.S., Kelley, S., **Darcher, A.**, Negi, L.T., Worthman, C., Miller, A., Raison, C. (2016, Feb.) Cognitively-Based Compassion Training (CBCT) for Medical Students: A Pilot Study, Center for Mind, Brain, and Culture Annual Conference, Atlanta, GA. [\[Link\]](#)

Mascaro, J.S., Kelley, S., **Darcher, A.**, Negi, L.T., Worthman, C., Miller, A., Raison, C. (2016, Feb.) The Impact of Compassion Training on Medical Student Well-Being and Immune Function, Center for Mind, Brain, and Culture Annual Conference, Atlanta, GA. [\[Link\]](#)

Darcher, A. (2013). From Entertainment to Enrichment: The Growth of YouTube's Online Scientific Content. Triple Helix Student Journal. Retrieved from [web](#).

Homolac, J., Abing, D., **Darcher, A.**, et al. (2012) *Technical Report: Explorer Class* (Marine Advanced Technology Education Remotely Operated Vehicle Competition). Retrieved from [web](#).

RESEARCH EXPERIENCE

Research Positions

Nov. 2018-	Research Assistant, Max-Planck-Institute for Neurobiology, Munich, Germany
March 2019	PI: Dr. Nadine Gogolla, Circuits for Emotion Research Group Leader
	<i>Concurrent with Master's studies</i>
	<ul style="list-style-type: none"> - Designed and implemented a pharmacological experiment to interrogate insular role in mouse behavior during an anxiogenic paradigm - Analyzed fiber photometry data for neural activity predictive of mouse movement
Oct. 2017-	Research Assistant, Max-Planck-Institute for Psychiatry, Munich, Germany
Feb. 2019	PI: Dr. Leonhard Schilbach, Social Neuroscience Research Group
	<i>Concurrent with Master's studies</i>
	<ul style="list-style-type: none"> - Collected and analyzed fMRI and eye-tracking data during a social-cue learning task for use in a Bayesian inference model of socially-relevant signal incorporation in individuals with autism

- May 2016-
Aug. 2017 Research Specialist, Emory University School of Medicine, Atlanta, GA, USA
 PI: Dr. Jennifer Mascaro, Assistant Professor, [Dept. of Family and Preventive Medicine](#)
- Investigated clinical efficacy of contemplative practices in treating mental health disorders characterized by social isolation symptoms
 - Developed novel paradigm for assessing subjective interpretations of emotional salient stimuli
- Nov. 2013-
Sept. 2015 Research Technician, Emory University, School of Medicine, Atlanta, GA, USA
 PI: Dr. Inyeong Choi, Associate Professor, [Dept. of Physiology](#)
Concurrent with Bachelor's studies
- Extracted and cultured hippocampal tissue from perinatal mice
 - Analyzed the role of a specific sodium-bicarbonate transporter in maintaining normal intracellular pH

MSc Internships and Projects

- March 2019-
Current Master's Thesis Student, Technical Universität Munich, Germany
 Project: Computational models of neural dynamics in human visual memory
 PI: Dr. Jakob Macke, [Computational Neuroengineering](#)
- Analyzed intracranial recordings from human medial temporal lobe during presentation of a commercial film
- Oct. 2018-
Nov. 2018 Research Internship, Max-Planck-Institute for Neurobiology, Munich, Germany
 PI: Dr. Nadine Gogolla, [Circuits for Emotion Research Group Leader](#)
- Performed two-photon imaging and analysis from mouse insular cortex during fear-based paradigm
- Feb. 2018-
Jan. 2019 Project Assistant, Center for Information and Language Processing, Munich, Germany
 PI: Dr. Hinrich Schütze, [Chair of Computational Linguistics](#)
- Optimized inputs for natural language processing sentiment analysis to determine nodes' "preferred" activation in natural text

BSc Internships

- May 2015-
Aug. 2015 Summer Research Internship, University of Washington, Seattle, WA, USA
 PI: Dr. Sheri Mizumori, Director, [Dept. of Psychology](#)
- May 2014-
Sept. 2015 Clinical Research Assistant, Emory University, Atlanta, GA, USA
 PI: Dr. Jennifer Mascaro, Center for the Study of Human Health (previous affiliation)

WORK EXPERIENCE

- June 2016-
Aug. 2017 Lead Baker, [Butter & Cream](#), Atlanta, GA, USA
Concurrent with position in Dr. Jennifer Mascaro's lab at Emory University
- May 2015-
Aug. 2015 Assistant Pastry Baker, [Belle Epicurean](#), Seattle, WA, USA
Concurrent with summer internship in Dr. Sheri Mizumori's lab
- March 2014-
Dec. 2014 Assistant Baker, Cakes & Ale, Decatur, GA, USA
Concurrent with Bachelor's studies and position in Dr. Inyeong Choi's lab
- March 2010-
Aug. 2013 Bread Baker, [Blue Scorchers Bakery & Cafe](#), Astoria, OR, USA
Partially concurrent with high school studies and Bachelor's studies
(non-continuous)

TEACHING EXPERIENCE

April 2019 Tutor, “Fundamentals in Neuroscience”, LMU-GSN, Munich
April 2019 Tutor, “Sensory Physiology”, LMU-GSN, Munich

WORKSHOPS, SUMMER SCHOOLS, AND TECHNICAL COMPETITIONS

Dec. 2019 Science Hack 2019, Technical Universität Munich
(accepted, upcoming) [Theme: Sustainability, Team BURDA](#)
Sept. 2019 Bernstein Conference on Computational Neuroscience, Satellite Workshops
June 2019 BRANDYSchool in Terzolas, Italy
[Interdisciplinary Research on Brain Network Dynamics](#)
March 2019 Interdisciplinary College in Günne, Germany
[Out of Your Senses: From Data to Insight](#)
Sept. 2018 Bernstein Conference on Computational Neuroscience, Satellite Workshops
June 2012 Marine Advanced Technology Education, Underwater Robotics Competition
Competitor, [Explorer Class](#)

SKILLS

Programming: Advanced: Python, MATLAB, Git, Visual Basic (E-Prime)
Elementary: HTML, SQL, C++
Python proficiencies: Keras, Tensorflow, JupyterHub, Statsmodels, Matplotlib
Software: AWS, SPSS, Qualtrics, E-Prime, Presentation, SPM for MATLAB, AnyMaze, Blender, LaTeX
Methods: Fiber photometry, EEG, Eyetracking, fMRI, Cell Culturing, Electrophysiology, Neural Tissue Isolation, Histology, Two-photon analysis
Certifications: Bloodborne Pathogens in Research, Biosafety Level I & II, Rodent Surgery Practices, Animal Care and Maintenance, Human Subjects Protection Curriculum, MPI Patient Security Practices

LANGUAGES

English, native speaker
German, intermediate
Tibetan, elementary

PROFESSIONAL MEMBERSHIPS

Organization for Computational Neuroscience, USA [\[Link\]](#)
Max-Planck-Institute of Neurobiology Alumni Association, Munich, Germany [\[Link\]](#)
Bernstein Network/Volkswagen SMARTSTART, **Student Representative**, Germany
Bernstein Network for Computational Neuroscience, Germany [\[Link\]](#)
Center for Mind, Brain, and Culture (CMBC), Atlanta, GA [\[Link\]](#)

HOBBIES

[Pastry & bread baking](#), outdoor climbing, illustration.