

Chris Angeloni

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[Website](#)

Education & Training

Postdoctoral Researcher	Neurobiology, Northwestern University <i>Advisor: Dr. Daniel Dombeck</i>	April 2022-present
Postdoctoral Researcher	Neuroscience, University of Pennsylvania <i>Advisor: Dr. Maria N. Geffen</i>	Jan 2022-March 2022
PhD	Psychology, University of Pennsylvania <i>Thesis: Perceptual consequences and neural mechanisms of auditory adaptation.</i> <i>Advisor: Dr. Maria N. Geffen</i>	December 2022
B.S.	Neuroscience, Lafayette College <i>Magna cum laude - GPA: 3.9</i>	May 2012
B.A.	Studio Art, Lafayette College <i>Magna cum laude - GPA: 3.9</i>	May 2012

Research Experience

OIST Computational Neuroscience Course <i>Okinawa Institute of Science and Technology</i> Project: LIF circuit model of gain modulation.	June 2018
KITP: Physics of Hearing Workshop <i>Kavli Institute at UC Santa Barbara</i>	June 2017
Research Analyst <i>Vanderbilt University</i> Advisor: Dr. Frank Tong	June 2012 - June 2014
Neuroscience Honors Thesis/BCI Think-Tank <i>Lafayette College</i> Advisors: Dr. Lisa Gabel & Dr. Yih-Chuong Yu	May 2011 - May 2012

Publications

J.S. Collina, G. Erdil, M. Xia, **C.F. Angeloni**, K.C. Wood, J. Seth, K.P. Kording, Y.E. Cohen, M.N. Geffen. (2025). Individual-specific strategies inform category learning. *Scientific Reports* 15, 2984.

Lai, A.T.*, Espinosa, G.*, Wink, G.E.*, **Angeloni, C.F.***, Dombeck, D.A., MacIver, M.A. (2024). A robot-rodent interaction arena with adjustable spatial complexity for ethologically relevant behavioral studies. *Cell Reports* 43 (2). *co-first authors

Angeloni, C.F., Mlynarski, W., Williams, A.M., Wood, K.C., Garami, L., Hermundstad, A., Geffen, M.N. (2023). Dynamics of cortical contrast adaptation predict perception of signals in noise. *Nature Communications* 14, 4817.

Williams, A.M., **Angeloni, C.F.**, Geffen, M.N. (2023). Sound improves neuronal encoding of visual stimuli in mouse primary visual cortex. *Journal of Neuroscience* 43 (16) 2885-2906.

Lesicko, A.M.H., **Angeloni, C.**, Blackwell, J.M., Di Biasi, M., Geffen, M.N. (2022). Cortico-fugal regulation of predictive coding. *eLife* 11: e73289.

Wood, K. C., **Angeloni, C.**, Oxman, K., Clopath, C., & Geffen, M. N. (2022). Neuronal activity in sensory cortex predicts the specificity of learning. *Nature Communications* 13, 1167.

Betzel, R.F., Wood, K.C., **Angeloni, C.**, Geffen, M.N., Bassett, D.S. (2019). Stability of spontaneous, correlated activity in mouse auditory cortex. *PLOS Computational Biology* 15 (12), e1007360.

Angeloni C., Geffen M.N. (2018). Contextual modulation of sound in the auditory cortex. *Current Opinion in Neurobiology*, 49:8-15.

Lorenc, E.S., Pratte, M.S., **Angeloni, C.**, Tong, F. (2014). Expertise for upright faces improves the precision but not the capacity of visual working memory. *Attention, Perception, & Psychophysics*, 76(7):1975-84.

Angeloni, C., Salter, D., Corbit, V., Lorence, T., Yu, Y-C., & Gabel, L.A. (2012). P300-based brain-computer interface memory game to improve motivation and performance. *Proc. of Ann. NEBEC*, 38:35-36.

Professional Memberships

Society for Neuroscience	Jul 2013 - present
Vision Sciences Society	Feb 2013 - 2015

Honors & Awards

F31 DC016524 NRSA Predoctoral Ruth L. Kirschstein National Research Service Award, National Institute on Deafness and Other Communication Disorders, “The function of cortical gain adaptation in detecting sounds in noise.”	2017 - 2021
NSF GRFP Honorable Mention	April 2016
NSF IGERT Traineeship in Complex Scene Perception Training fellowship for interdisciplinary, computational research.	Aug 2014 - 2016
Rappolt '67 and Oeschle '57 Neuroscience Prize Awarded to an undergraduate senior based on scholarship in the classroom and laboratory and service to the major.	April 2012
Federal SMART Grant Federal grant awarded to high performing students in the natural sciences.	2010 - 2012

Lafayette Marquis Scholar Academic scholarship awarded based on merit.	2008 - 2012
Lafayette Dean's List Awarded for maintaining a cumulative GPA greater than 3.5.	2008 - 2012

Teaching Experience

Teaching assistant for CIS140: Introduction to Cognitive Science	Fall 2015
Teaching assistant for PSYC149: Cognitive Neuroscience	Spring 2016
Mentoring: Stamati Lliapis – undergraduate student, University of Pennsylvania Nitay Caspi – undergraduate student, University of Pennsylvania	2014 – 2017 2016

Public Engagement

<i>Science After Hours: 'Don't Try This at Home', Franklin Institute</i> Designed and presented demos of acoustical resonance.	2017
<i>Science After Hours: 'Nerd Olympics', Franklin Institute</i> Helped run an auditory illusion booth to teach young adults audition.	2015
<i>Brain Blast</i> Vanderbilt Health program for teaching children about neuroscience.	2013 – 2014
<i>TEDxLaf</i> Promoted and organized a TED-style talk series at Lafayette College to educate and inspire the public with science and art-related talks.	2011 – 2012
<i>O+ Festival Participant</i> Designed and installed original artwork for the O+ Festival, an event providing health care and awareness for artists.	2011

Skills

Methods: chronic and acute electrophysiology, optogenetics, operant behavioral training, probabilistic modelling, machine learning, general linear models, two-photon imaging, fMRI, EEG, eye tracking

Programming: MATLAB, Bash, Arduino, Python, R, HTML/CSS, JavaScript, OpenGL

Software: Kilosort2, phy, Brian2 simulator, PrairieLink, Plexon, Unity, Blender, SPSS, MS Office, Adobe Suite, FSL, Freesurfer, BrainVoyager

References

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