

Chris Angeloni

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[Website](#)

Education & Training

Postdoctoral Researcher	Neuroscience, University of Pennsylvania <i>Advisor: Dr. Maria N. Geffen</i>	Jan 2022-present
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

Angeloni, C.F., Mlynarski, W., Williams, A.M., Wood, K.C., Garami, L., Hermundstad, A., Geffen, M.N. (2021). Cortical efficient coding shapes behavioral performance. *BioRxiv* 2021.08.11.455845. Under review.

Williams, A.M., **Angeloni, C.F.**, Geffen, M.N. (2021). Sound improves visual orientation coding in the primary visual cortex. *BioRxiv* 2021.08.03.454738. Under review.

Lesicko, A.M.H., **Angeloni, C.**, Blackwell, J.M., Di Biasi, M., Geffen, M.N. (2021). Cortico-fugal regulation of predictive coding. *BioRxiv* 2021.04.12.439188. Under review.

Wood, K. C., **Angeloni, C.**, Oxman, K., Clopath, C., & Geffen, M. N. (2020). Neuronal activity in sensory cortex predicts the specificity of learning. *bioRxiv* 2020.06.02.128702. Under review.

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
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Vision Sciences Society	Feb 2013 - 2015
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Honors & Awards

F31 DC016524 NRSA	2017 - 2021
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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.*”

NSF GRFP Honorable Mention	April 2016
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NSF IGERT Traineeship in Complex Scene Perception	Aug 2014 - 2016
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Training fellowship for interdisciplinary, computational research.

Rappolt '67 and Oeschle '57 Neuroscience Prize	April 2012
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Awarded to an undergraduate senior based on scholarship in the
classroom and laboratory and service to the major.

Federal SMART Grant	2010 - 2012
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Federal grant awarded to high performing students in the natural
sciences.

Lafayette Marquis Scholar	2008 - 2012
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Academic scholarship awarded based on merit.

Lafayette Dean's List	2008 - 2012
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Awarded for maintaining a cumulative GPA greater than 3.5.

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 2014 – 2017

Nitay Caspi – undergraduate student, University of Pennsylvania 2016

Public Engagement

Science After Hours: ‘Don’t Try This at Home’, Franklin Institute 2017
Designed and presented demos of acoustical resonance.

Science After Hours: ‘Nerd Olympics’, Franklin Institute 2015
Helped run an auditory illusion booth to teach young adults audition.

Brain Blast 2013 – 2014
Vanderbilt Health program for teaching children about neuroscience.

TEDxLaf 2011 – 2012
Promoted and organized a TED-style talk series at Lafayette College to educate and inspire the public with science and art-related talks.

O+ Festival Participant 2011
Designed and installed original artwork for the O+ Festival, an event providing health care and awareness for artists.

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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