**Chris Angeloni**

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[Website](http://www.chrisangeloni.com/)

**Education & Training**

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

**Research Experience**

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| **OIST Computational Neuroscience Course**  *Okinawa Institute of Science and Technology*  Project: LIF circuit model of gain modulation. | June 2018 |
| **KITP: Physics of Hearing Workshop**  *Kavli Institute at UC Santa Barbara* | June 2017 |

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| **Research Analyst**  *Vanderbilt University*  Advisor: Dr. Frank Tong | June 2012 - June 2014 |
| **Neuroscience Honors Thesis/BCI Think-Tank**  *Lafayette College*  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**

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

**Honors & Awards**

**F31 DC016524 NRSA**  2017 - 2021

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**  Training fellowship for interdisciplinary, computational research. | Aug 2014 - 2016 |

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| **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**

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| 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**

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| *Science After Hours: ‘Don’t Try This at Home’, Franklin Institute*  Designed and presented demos of acoustical resonance.  *Science After Hours: ‘Nerd Olympics’, Franklin Institute*  Helped run an auditory illusion booth to teach young adults audition. | 2017  2015 |
| *Brain Blast*  Vanderbilt Health program for teaching children about neuroscience. | 2013 – 2014 |
| *TEDxLaf*  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 |
| *O+ Festival Participant*  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**

Dr. Maria Geffen, Associate Professor

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