# Chris Angeloni

827 S. St. Bernard St., Apt. 2
Philadelphia, PA 19143
(443) 915-6965
chris.angeloni@gmail.com
Website

## Education

| | | |
|---|---|---|
| **PhD Candidate** | Psychology, University of Pennsylvania<br>GPA: 3.9 | present |
| **B.S.** | Neuroscience, Lafayette College<br>*Magna cum laude* - GPA: 3.9 | May 2012 |
| **B.A.** | Studio Art, Lafayette College<br>*Magna cum laude* - GPA: 3.9 | May 2012 |

## Research Experience

**Graduate Thesis: Perceptual and cortical consequences of efficient adaptation.** present
*University of Pennsylvania*
Advisor: Dr. Maria Geffen

**OIST Computational Neuroscience Course** June 2018
*Okinawa Institute of Science and Technology*
Project: LIF circuit model of gain modulation.

**KITP: Physics of Hearing Workshop** June 2017
*Kavli Institute at UC Santa Barbara*

**Research Analyst** June 2012 - June 2014
*Vanderbilt University*
Advisor: Dr. Frank Tong

**Neuroscience Honors Thesis/BCI Think-Tank** May 2011 - May 2012
*Lafayette College*
Advisors: Dr. Lisa Gabel & Dr. Yih-Chuong Yu

## 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 |
| Vision Sciences Society | Feb 2013 - 2015 |

## Honors & Awards

**F31 DC016524 NRSA** April 2017 - present
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

**NSF IGERT Traineeship in Complex Scene Perception** Aug 2014 - 2016
Training fellowship for interdisciplinary, computational research.

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

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

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

**Lafayette Dean's List** 2008 - 2012
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:** electrophysiology, two-photon microscopy, optogenetics, fMRI, EEG, eye tracking, probabilistic modelling, machine learning, operant behavioral training, linear and general linear models

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

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

## References

Dr. Maria Geffen, Associate Professor
Department of Neuroscience
University of Pennsylvania
3400 Spruce St., 5 Ravdin
Philadelphia, PA 19104

(215) 898-0782
mgeffen@pennmedicine.upenn.edu

Dr. David Brainard, RRL Professor of Psychology
Department of Psychology
University of Pennsylvania
3710 Hamilton Walk, 417 Goddard Labs
Philadelphia, PA 19104
(215) 573-7579
brainard@psych.upenn.edu

Dr. Yale Cohen, Professor
Department of Otorhinolaryngology
University of Pennsylvania School of Medicine
3400 Spruce, 5 Ravdin
Philadelphia, PA 19104
(215) 898-7504
ycohen@pennmedicine.upenn.edu