Anthony LoPrete

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Education

University of Pennsylvania, Philadelphia, PA — Aug 2021 - Present
PhD Bioengineering, Advisor: Dr. Johannes Burge

American University, Washington, DC — Aug 2017 - May 2021
BS Physics (honors) and Computational Science, *summa cum laude*

Honors & Awards

Ashton Fellowship	Aug 2021
Outstanding Academics in Physics	Apr 2021
Scott A. Bass Outstanding Scholarship at the Undergraduate Level Award	Apr 2021
Outstanding Achievement in Undergraduate Research	Mar 2021
Goldwater Scholarship	Mar 2020
University of Rochester CVS/NIH Summer Research Fellowship	Mar 2020
Upsilon Pi Epsilon	Mar 2019
NASA DC Space Grant Summer Research Fellowship	Mar 2019

Papers & Publications

Anthony LoPrete, Alexander Gokan, and Arthur G. Shapiro, "The Pulfrich Effect in Virtual Reality," ACM Transactions on Applied Perception (2025, in press), Preprint posted at: bioRxiv. 585956, 1-20. DOI: https://doi.org/10.1101/2024.03.21.585956

Anthony LoPrete and Johannes Burge, "The Pulfrich Effect: Temporal Processing and 3D Perception," In: The Oxford Compendium of Visual Illusions, 2nd Edition (2025, in press). Editors: Arthur G. Shapiro and Dejan Todorovic. 1-13. Oxford University Press.

Emily L. Isenstein, Tomas Waz, **Anthony LoPrete**, Yacinda Hernandez, Emily J. Knight, Ania Busza, and Duje Tadin, "Rapid assessment of hand reaching using virtual reality and application in cerebellar stroke," PLOS One. 17(9). (2022). DOI: https://doi.org/10.1371/journal.pone.0275220

Arthur G. Shapiro and **Anthony LoPrete**, "Helix rotation: luminance contrast controls the shift from two-dimensional to three-dimensional perception," Journal of the Optical Society of America A. 37, 262-270 (2020). DOI: https://doi.org/10.1364/JOSAA.382373

Presentations

Anthony LoPrete and Johannes Burge, "Studying Motion Perception in the Real World with Augmented Reality Headsets ," poster presented at: Vision Sciences Society Meeting, May 18, 2025, St. Petersburg, FL.

Anthony LoPrete and Arthur G. Shapiro, "Local Contrast and Global Luminance Modulate Interocular Delay in Virtual Reality," short talk presented at: Optica Fall Vision Meeting, October 19, 2021, Seattle, WA (held virtually).

Anthony LoPrete, Emily Isenstein, Emily Knight, and Duje Tadin, "Development of a VR Reaching Task to Study the Relationship between Vision and Proprioception," talk presented at: University of Rochester BCS/CVS Summer Undergraduate Research Lecture Session, August 19, 2020, Rochester, NY (held virtually).

Anthony LoPrete and Arthur G. Shapiro, "The Pulfrich Effect in Virtual Reality," poster presented at: NASA DC Space Grant Consortium Poster Session, January 22, 2020, Washington, DC.

Anthony LoPrete and Arthur G. Shapiro, "Luminance Captures Equiluminance in 3-dimensional motion," poster presented at: The Optical Society Fall Vision Meeting, September 20 - 21, 2019, Washington, DC.

Arthur G. Shapiro, **Anthony LoPrete**, and Lily Donaldson, "Helix Rotation: A new twist on Pulfrich and Hess for investigating color and depth perception in virtual reality," talk presented at: Symposium of the International Colour Vision Society, July 9, 2019, Riga, Latvia.

Teaching

American University

CSC-280: Introduction to Computer Science I (Teaching Assistant)	Spring 2019
CSC-476/676: Computer Vision (Teaching Assistant)	Spring 2021
MATH-221: Calculus I (Supplemental Instruction Leader)	Spring 2020, Fall 2020
PHYS-356: Waves and Optics (Teaching Assistant)	Spring 2020

Invited Talks

University of Pennsylvania, CNI +/-	Mar 2022
University of Rochester, Active Perception Lab Meeting	Feb 2021

Outreach

Co-organizer, CNI +/-, University of Pennsylvania	Sep 2022 - May 2023
Panelist, "Applying to STEM Grad Programs," American University	Oct 2022
mindCORE Stamp Mentor, University of Pennsylvania	Oct 2021 - Dec 2021
Panelist, "Merit Awards Demystified," AU CDI & OMA	Mar 2021
Volunteer, DC Math Circle	Sep 2019 - Sep 2020