Diana C. Perez Rivera

Pronouns: She/Her(s)
dianaperez@u.northwestern.edu | dianacperez.com

EDUCATION

- **PhD** in Brain, Behavior and Cognition *Expected June 2025*
  Psychology Department, Northwestern University, Evanston, IL
  Thesis: "Precision mapping of brain networks in aging brains"
  Committee: Dr. Caterina Gratton (Chair), Dr. Emily Rogalski, Dr. Robin Nusslock
- **MSc** in Brain, Behavior and Cognition **December 2021**
  Psychology Department, Northwestern University, Evanston, IL
  Thesis: "Hemispheric Asymmetries of Individual Differences in Functional Connectivity"
  Committee: Dr. Caterina Gratton (Chair), Dr. Rodrigo Braga, Dr. Mark Beeman
- **BS** in Neuroscience and Cognitive Science **May 2018**
  Neuroscience and Cognitive Science Department, University of Arizona, Tucson, AZ
  Minors: Spanish, Italian Language
  Honors: *cum laude* (GPA 3.56/4.00)
  Thesis: "Object Memories Alter the Appearance of Blurry Object Borders"
  Thesis Adviser: Dr. Mary A. Peterson

RESEARCH EXPERIENCE

Graduate Research Assistant, **Evanston, Illinois**
Gratton Laboratory, PI: Dr. Caterina Gratton
Northwestern University, Psychology Department *July 2019 – Present*

Research Associate, **Tucson, Arizona**
Visual Perception and Cognition Laboratory, PI: Dr. Mary A. Peterson
University of Arizona, Psychology Department *May 2016 – July 2019*

Research Technician, **Tucson, Arizona**
Medical Imaging Laboratory, PI: Dr. Nan-kuei Chen
University of Arizona, Biomedical Engineering Department *October 2018 – July 2019*

Research Trainee, **Mexico City, Mexico**
Neurobiology Laboratory, PI: Dr. Eduardo Calixto
Instituto Nacional de Psiquiatria (National Institute of Psychiatry) *May 2018 – August 2018*

Research Coordinator, **Tucson, Arizona**
Women's Health Initiative - LILAC Study, PI: Dr. Cynthia Thompson
University of Arizona, Herbert K Abrams Public Health Center *April 2017 – January 2018*

Research Trainee, **Tucson, Arizona**
Undergraduate Biology Research Program (UBRP), Jennifer Cubeta, Program Director
University of Arizona, Molecular and Cellular Biology Department *May 2016 – May 2018*

Research Assistant, **Tucson, Arizona**
Gronenberg Laboratory, PI: Dr. Wulfilla Gronenberg
University of Arizona, Neuroscience Department *February 2017 – March 2017*

Research Assistant, **Tucson, Arizona**
Language Development Laboratory, PI: Dr. LuAnn Gerken,
University of Arizona, Psychology Department *January 2016 – May 2016*

HONORS & AWARDS

- Arizona Scholar: May 2011
- Arizona Board of Regents Award: May 2011
- Tucson Hispanic Scholarship Fund Award: 2011-2012 academic year
- University of Arizona,
    - Wildcat Excellence Award: May 2011
    - Minority Scholarship: 2011-2012 academic year
    - T.F. Leehan Memorial Scholarship: 2015-2016 academic year
    - Neuroscience and Cognitive Science Undergraduate Grant: 2016-2017 academic year
    - Neuroscience and Cognitive Science Undergraduate Research Award: April 2017
    - Barbara Hesler Memorial Scholarship: 2017-2018 academic year
    - Neuroscience and Cognitive Science Undergraduate Grant: 2017-2018 academic year
    - Nominated for Outstanding Senior Award: May 2018
    - Nominated for Excellence in Undergraduate Research Award: May 2018
- Western Alliance for Expanding Student Opportunities (WAESO) Grant: September 2017
- Ford Fellowship Foundation, Honorable Mention: May 2020
- NINDS/NIH T32 Training Grant in Neuroscience of Human Cognition

PUBLICATIONS

- **Perez, D.C.,** Cook, S.M., Peterson, M.A. (2020). Prior Experience Alters the Appearance of Blurry Object Borders. *Scientific Reports, 10*(1), 1-13.
- Kraus, B.T., **Perez, D.C**., Ladwig, Z., Seitzman, B.A., Dworetsky, A., Petersen, S.E., & Gratton, C. (2021). Network variants are similar between task and rest states. *Neuroimage, 229*, 117743.
- Smith, D. M., **Perez, D. C.,** Porter, A., Dworetsky, A., & Gratton, C. (2021). Light through the fog: using precision fMRI data to disentangle the neural substrates of cognitive control. *Current Opinion in Behavioral Sciences*, *40*, 19-26
- Cacciamani, L., Skocypec, R.M., Flowers, C.S., **Perez, D.C.,** Peterson, M.A. (2023). BOLD Activation on the Groundside of Figures: More suppression of grounds that competed more for figural status. *Cortex.*
- **Perez, D.C.,** Dworetsky, A.M., Braga, R.M., Beeman, M., Gratton, C. (2023). Hemispheric asymmetries of individual differences in functional connectivity. *Journal of Cognitive Neuroscience.*
- Gratton, C., Ladwig, Z., **Perez, D.C.** (under review). What do network approaches add to our understanding of prefrontal cortex and executive function? In: *Organization of Frontal Lobe Networks and Function: Localization and Interaction*, edited by M. T. Banich, S. N. Haber, and T. W. Robbins. Strüngmann Forum Reports, vol. 35, J. R. Lupp, series editor. Cambridge, MA: MIT Press.

POSTERS & TALKS

- **Perez, D.C.**, Wulfekuhle, G., Hernandez, J.J., Tran, G., Gordon, E.M., Gratton, C. (November 2023). Investigating individual differences in aging networks: A precision fMRI dataset in older adults. Poster presented at the Society for Neuroscience annual meeting, Washington, D.C.
  • Wulfekuhle, G., **Perez, D.C.**, Ladwig, Z., Dworetsky, A., Gratton, C. (November 2023). A

characterization of connector hub brain regions across individuals. Poster presented at the Society for Neuroscience annual meeting, Washington, D.C.

- **Perez, D.C.,** Dworetsky, A., Braga, R.M., Beeman, M., Gratton, C. (June 2022). *Asymmetries of functional network variants suggest hemispheric constraints on individual differences*. Poster presentation at the Organization for Human Brain Mapping annual meeting, Glasgow, Scotland.
- **Perez, D.C.** (May 2022). *Using precision fMRI to study the neural correlates of cognitive decline in healthy aging.* Talk delivered virtually to the Florida Consortium for the Neurobiology of Cognition.
- **Perez, D.C.,** Tran, G., Hernandez, J.J., Gratton, C. (April 2022). *Precision scanning of brain networks in older adults: daily and longitudinal stability*. Poster presented at the Cognitive Neuroscience Society annual meeting, San Francisco, California.
- **Perez, D.C.** (November 2021). *Hemispheric Asymmetries of Network Variants.* Talk delivered virtually to the Cognitive Brain Mapping Group at Northwestern University.
- **Perez, D.C.,** Dworetsky, A., Gratton, C. (November 2021). *Hemispheric Asymmetries of Individual Differences in Functional Connectivity.* Poster presented virtually at the Society for Neuroscience meeting.
- **Perez, D.C.,** Gratton, C. (March 2021). *Precision scanning of brain networks in older adults.* Poster presented virtually at the Cognitive Neuroscience Society meeting.
- Peterson, M.A., **Perez, D.C.**, Cook, S.M. (November 2019). *Object Memories Alter the Appearance of Blurry Object Borders.* Spoken presentation at the Psychonomic Society 2019 Annual Meeting, Montreal, Quebec, Canada.
- Cacciamani, L., Skocypec, R.M., Flowers, C.S., **Perez, D.C**, Peterson, M.A. (June 2019). *Ground activation in object perception: Evidence for inhibitory competition and predictive coding*. Poster presented at the Organization for Human Brain Mapping annual meeting, Rome, Italy
- **Perez, D.C.**, Peterson, M.A. (May 2019). *An investigation on the influence of prior experience on working memory representations.* Poster presented at the Vision Sciences Society meeting, St. Pete Beach, Florida.
- Cacciamani, L., Skocypec, R.M., Flowers, C.S., **Perez, D.C.**, Peterson, M.A. (March 2019). *Competition-dependent ground activation in object perception: Evidence for inhibitory competition and/or predictive coding?* Poster presented at the Cognitive Neuroscience Society meeting, San Francisco, California.
- **Perez, D.C**., Cook, S.M., Peterson, M.A. (December 2018). *Object Memories Alter the Appearance of Blurry Object Borders.* Poster presented at the ASU/UA Cognitive Science Conclave in Tempe, Arizona.
- **Perez, D.C**., Serrano, A., Guillen, K., Calixto, E. (August 2018). *Blocking neuronal hyperexcitability induced by GABA-withdrawal syndrome using CF_3-HEPA and $DiCF_3$-HEPA: an electropharmacological study (title translated from Spanish).* Talk delivered at the National Institute of Psychiatry, Mexico City, Mexico.
- **Perez, D.C**., Dominguez, Z., Guillen, K., Calixto, E. (June 2018). *Proposal for an electropharmacological study for blocking neuronal hyperexcitability induced by GABA-withdrawal syndrome using CF_3-HEPA and $DiCF_3$-HEPA (title translated from Spanish).* Talk delivered at Benemérita Universidad Autónoma de Puebla, Puebla, Mexico.
- **Perez, D.C**., Cook, S.M., Peterson, M.A. (May 2018). *Object Memories Alter the Appearance of Blurry Object Borders.* Poster presented at the Vision Sciences Society conference in St. Pete Beach, Florida.

- **Perez, D.C**., Jernigan, M.A., Cook, S.M., Peterson, M.A. (March 2018). *Does Familiarity Increase the Perceived Sharpness of an Object?* Poster presented at the Western Alliance for Expanding Student Opportunities (WAESO) conference in Tempe, Arizona.
- Cook, S.M., **Perez, D.C**., Peterson, M.A. (May 2017). *An Investigation of the Effect of Prediction on Object Perception.* Poster presented at the Vision Sciences Society conference in St. Pete Beach, Florida.
- **Perez, D.C**., Cook, S.M., Peterson, M.A. (March 2017). *Elucidating the Mechanisms of Object Perception.* Poster presented at the Western Alliance for Expanding Student Opportunities (WAESO) conference in Tempe, Arizona.
- **Perez, D.C**., Cook, S.M., Peterson, M.A. (January 2017). *Elucidating the Mechanisms of Object Perception.* Poster presented at the Undergraduate Biology Research Program's 28th annual conference in Tucson, Arizona.

TEACHING & MENTORING

Graduate Teaching Assistant:

- Psych 212: Intro to Neuroscience, Spring 2020
  Northwestern University, Primary Instructor: Caterina Gratton
- Psych 110: Intro to Psychology, Fall 2020
  Northwestern University, Primary Instructor: Dr. Sara Broaders
- Psych 244: Cognitive Development, Fall 2021
  Northwestern University, Primary Instructor: Dr. Sara Broaders
- Psych 324: Perception, Fall 2022
  Northwestern University, Primary Instructor: Dr. Satoru Suzuki

Guest Lectures:

- Psych 212: Intro to Neuroscience, Spring 2020
  Northwestern University, Topic: Aging in the Brain
- Principles of fMRI, Summer 2020
  Northwestern University, Topic: Precision fMRI
- Research Methods in Psychology, Spring 2022
  Northwestern University, Topic: Measuring Brain Networks with fMRI

Mentoring:

NSCS mentoring program, University of Arizona *August 2016 – May 2018*
The Neuroscience and Cognitive Science (NSCS) department pairs volunteer advanced students in the NSCS major with pre-majors. Volunteers provide mentorship and guidance to pre-majors as they prepare to apply to the major and navigate the curricula to choose an emphasis.

Undergraduate thesis mentoring, Northwestern University *November 2020 – June 2022*
Served as lab mentor for an undergraduate student completing a senior thesis at the Gratton Lab. This role included mentoring in topics such as fMRI data preprocessing, statistical methods, aging effects on functional brain networks, and manuscript writing. The outcome was a thesis on individualized measurements of large-scale system desegregation in older adults that received an award for an outstanding thesis.

UNIVERSITY SERVICE

- **Student Diversity and Inclusion Committee**

Northwestern University, June 2020 - Present

- **Sneak Peek Organizing Committee Member**
  Northwestern University, March 2021-June 2021, March 2022-June 2022, and present
- **Graduate and Undergraduate Initiative for Advancement and Resources (GUIAR) Mentorship Program organizing team**
  Northwestern University, May 2021 - Present

PROFESSIONAL AND PUBLIC INVOLVEMENT

Pen Pals Program, University of Arizona *August 2016 – May 2018*
This program aims to create enthusiasm about STEM careers in middle school students. Participating university students maintain regular correspondence with students from a local middle school throughout the school year. Each semester, the middle school students visit the university to meet their pen pal and engage in fun, science-related activities put together by various clubs on campus.

Professional Affiliations
Vision Sciences Society, Society for Neuroscience, Cognitive Neuroscience Society, Organization for Human Brain Mapping

ADHOC Review
Developmental Cognitive Neuroscience, Psychophysiology, NeuroImage