

# SARAH HALLER BAUM MILLER

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## EDUCATION & SKILLS

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- 2013**      **PhD, NEUROSCIENCE** University of Texas Health Science Center at Houston
- National Institutes of Health Theoretical & Computational Neuroscience fellowship
  - RW Butcher Achievement Award (2013) and Neuroscience Research Center Brain Awareness Outreach Award (2012), only one awarded across entire school annually
- 2009**      **BS, NEUROSCIENCE** College of William & Mary
- Honors Thesis: The Cognitive Advantage of Percussive Auditory Information [🔗](#)
- SKILLS**      Python (including pandas, matplotlib, surfer, scipy), Ubuntu, bash, git, FreeSurfer, R, MATLAB, Linux, Microsoft Office products, LaTeX, neuroimaging (functional magnetic resonance imaging [fMRI], magneto- and electro-encephalography [M/EEG]), translational research (autism, aphasia, healthy aging, epilepsy), experimental design







## WORK EXPERIENCE

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- 2016 -**      **POSTDOCTORAL FELLOW** Institute for Learning & Brain Sciences, University of Washington
- Designed experiments combining quantitative neuroimaging and thorough clinical characterization to understand audiovisual integration and auditory spatial attention
- Utilized machine learning algorithms to analyze neural connectivity
  - Wrote and maintained IRB protocol for adolescent autism research
  - Author on 7 papers, 1 conference presentation, and 1 textbook chapter
- 2014 - 2016** **POSTDOCTORAL FELLOW** Vanderbilt Brain Institute, Vanderbilt University
- Led MRI research program with a specific focus on individual differences in healthy aging and adolescents with autism
- Awarded Autism Speaks Meixner Postdoctoral Fellowship in Translational Research
  - Mentored two graduate students and five undergraduate students
  - Completed inaugural Management and Business Principles for Scientists course [🔗](#)
  - Overhauled lab-wide management of subject coding and raw data to central database
  - Interdisciplinary collaboration with physicians to study sensory processing of medical alarms in the intensive care unit (ICU)
  - Author on 6 papers, 10 conference presentations, and 1 invited talk
- 2009 - 2013** **GRADUATE RESEARCH ASSISTANT** University of Texas Health Science Center at Houston
- Designed experiments to investigate audiovisual speech perception using functional MRI (fMRI) and electrocorticography (ECoG) in patients with aphasia and epilepsy
- Collected and analyzed over 150 GB of raw neuroimaging data
  - Led school wide Outreach Program, which grew from 4-5 events per year to 12+ events per year and created first Steering Committee to set vision for Outreach Program
  - Author on 3 manuscripts and 10 conference presentations

## HONORS & AWARDS

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- ONGOING** Author on 16 research papers, 21 conference presentations, and 1 textbook chapter   
Ad hoc reviewer for 16 journals 
- 2018** University of Washington Auditory Neuroscience Training Program, Postdoctoral Fellowship (NIDCD T32DC005361)
- 2016** Author, blog post on Autism Speaks 
- 2015 – 2018** Autism Speaks Meixner Postdoctoral Fellowship in Translational Research (9717)
- 2015** 1<sup>st</sup> place, Best Poster (Clinical, Behavioral and Intervention Research Division), Vanderbilt Kennedy Center Science Day
- 2015** 1<sup>st</sup> place, Best Poster (Neuroscience Division), Vanderbilt Postdoctoral Association and Shared Resources Symposium
- 2011 – 2013** Gulf Coast Consortia Training in Theoretical and Computational Neuroscience, Predoctoral Fellowship (NIBIB T32EB006350)
- 2013** R.W. Butcher Achievement Award 
- 2012** Top 10 Finalist, SfN Brain Awareness Video 
- 2011** Neuroscience Research Center Brain Awareness Outreach Award 

## SERVICE & MENTORING

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- 2017 – 2019** Mentoring Session Co-Chair, Executive Committee for the Student-Postdoc Chapter of the Association for Research in Otolaryngology (spARO)
- Co-organized 8 mentoring sessions during annual meeting for soft skills for trainees including job search and independence and obtaining funding
- 2017** Co-chair, *Should binding and integration be synonymous?* symposium, International Multisensory Research Forum Annual Meeting, Nashville, TN.
- 2015 – 2016** Local Organizing Committee, International Multisensory Research Forum Annual Meeting, Nashville, TN.
- Co-organized international conference for 250 scientists including website and social media, as well as an educational workshop featuring top scientists in the field of neuroimaging
- 2015** Guest lecturer, Neuroscience Discussions (NURO 8325)
- Prepared experimental design prompt and accompanying statistics problem for fMRI and led discussion for 10 first year neuroscience students
- 2015** Co-chair, *Above the Mean – Examining Variability in Multisensory Processing* symposium, International Multisensory Research Forum Annual Meeting, Pisa, Italy.
- 2010 – 2013** Coordinator, ProjectGRAD
- Coordinated 2 week biology academy for 35 high school students, designed and taught lessons on sensory systems & neural anatomy
- 2012** Co-chair, *Multisensory Integration in Healthy and Clinical Populations* nanosymposium, Society for Neuroscience Annual Meeting, Chicago, IL.
- 2012** Guest Lecturer, Neuroscience elective. Kinkaid School. Course director: Dr. Craig Bowe.
- Taught lecture to 25 high school students about general principles of multisensory integration and current research in the field