Sophia M. Martin

<u>smart48@emory.edu</u> • 770-686-2069

X: @ssophiamartinn

EDUCATION

 May 2021
 Georgia Institute of Technology (Atlanta, GA)

 Bachelor of Science in Psychology Highest Honors (Major GPA: 3.83)

 Minor in Health and Medical Sciences

AWARDS & GRANTS

| 2024 | SPSP Mini Grant (\$500) - Science ATL STEM Professional School Partnership (SPSP) Program |
|-------------|---|
| 2021 | GT CARES 4U Project (\$2,346) - Georgia Tech Joint Allocations Committee (JAC) |
| 2020 | Undergraduate Research Stipend (\$2,500) - Georgia Tech School of International Affairs |
| 2020 | President's Undergraduate Research Award (PURA) (\$1,500) - Georgia Institute of Technology |
| 2019 | 3M/NSF Research Experience for Undergraduates (REU) Scholarship (\$5,500) - 3M and NSF partnership |
| 2018 | 1st Place - Vertically Integrated Projects (VIP) Innovation Competition (\$1,000) - Georgia Institute of Technology |
| 2017 - 2019 | Science and Math Research Training (SMaRT) Scholarship (\$10,000) - NSF and Georgia Tech College of Sciences |
| 2017 - 2021 | Zell Miller Scholarship (\$43,216) - University System of Georgia (merit based) |

SELECTED RESEARCH EXPERIENCE

The Learning, Understanding, Memory, & Neurodevelopment (LUMeN) Lab | Emory University Department of Psychology and Neuroscience (Atlanta, GA)

June 2023 - Research Specialist

present

Project title: Neurocognitive mechanisms of reward-motivated memory persistence across age *Faculty Advisor*: Alexandra O. Cohen, PhD

- Recruit, screen, schedule, and collect fMRI, ecological momentary assessment (EMA), Fitbit (activity and sleep metrics), and survey data from participants ages 10-25 in a longitudinal study
- Build fMRIprep and FSL pre- and post-processing pipelines for data analysis
- Help conceptualize, code, and administer cognitive tasks in PsychoPy and R
- Train, supervise, and mentor undergraduate research assistants in consenting, task administration, and data management and quality checking
- Fulfill administrative duties such as IRB communication, study modifications, and managing grant expenses

Project title: Implication of superior colliculus functional connectivity development and early life threat exposure on psychopathology symptoms in adolescents

Faculty Advisors: Alexandra O. Cohen, PhD & Philip A. Kragel, PhD

- Perform a literature review to propose novel research questions and formulate hypotheses
- Conceptualize, code, and compile data for a latent correlation analysis on longitudinal ABCD study data using Matlab/SPM12, R, and python
- Present findings by writing abstracts and oral presentations

Project title: Modifying positive and negative associations across development *Faculty Advisor*: Alexandra O. Cohen, PhD

- Assist with building a study paradigm in PsychoPy with Biopac integration
- Mentor and train undergraduate assistants in all steps of research process

Child Imaging Research on Cognition and Life Experiences (CIRCLE) Lab | University of North Carolina at Chapel Hill Department of Psychology and Neuroscience (Chapel Hill, NC)

June 2021 – Research Specialist

June 2023

June 2021

Project titles: Neural Underpinnings of Emotion Regulation in Youth & Testing the Predictive Power of Neural Connectivity: Suicidal Ideation in Youth Exposed to Maltreatment *Faculty Advisors:* Adam B. Miller, PhD & Margaret A. Sheridan, PhD

- Conducted sMRI and fMRI data cleaning and analysis using FreeSurfer, FSL, AFNI, and custom pipelines
- Managed longitudinal study dataset, training and supervising post-Bacc and undergraduate research assistants in R, SPSS, and FSL tools (i.e., fMRIPrep, FreeSurfer)
- Fulfilled administrative duties such as IRB communication, study modifications, and managing expenses
- Documented and organized ongoing data analysis projects on digital co-workspaces

Project title: Neural pathways linking early adversity and preschool psychopathology to adolescent mental health *Faculty Advisors:* Margaret A. Sheridan, PhD, Kimberly Carpenter, PhD (Duke University), & William Copeland, PhD (University of Vermont)

- Tracked, recruited, screened, and scheduled parent and teen dyads who participated in original study 10 years prior for three-phase longitudinal follow-up study
- Collect fMRI, survey, cognitive assessment, and creativity task data from participants ages 14-21 years old
- Conduct the Parent/Child and Adolescent Psychiatric Assessment (P/CAPA) structured, diagnostic interview with participants and their parents
- Created documentation and trained undergraduate, post-Bacc, and graduate research assistants in protocols for fMRI study administration

Memory and Aging Lab | Georgia Institute of Technology School of Psychology (Atlanta, GA)

Jan 2020 – Undergraduate Research Assistant

Project Title: Emotional Memory and Aging Online Study Faculty Advisor: Audrey Duarte, PhD

- Led conversion of ongoing "Mood, sleep, and memory" study to a virtual platform and added dimensions to capture COVID-19-related experiences and emotional well-being amidst the initial wave of the pandemic
- Adapted memory and recall tasks from PsychoPy onto Github and Pavolvia for online distribution of task
- Recruited, managed, and compensated online participants through Prolific
- Wrote python scripts to clean data into a master dataset and trained other undergraduate research assistants in data cleaning and analysis in SPSS
- Conceptualized, proposed, prepared, and presented a senior honors thesis

Project Title: Mood, Sleep, and Memory

Graduate & Faculty Advisor: Taylor James, PhD & Audrey Duarte, PhD

- Screened, recruited, scheduled, and conducted fMRI scans, cognitive assessments, and memory tasks with participants ages 18-75 with a range of anxiety and depression symptoms
- Trained fellow undergraduates on study procedures
- Assisted with data entry and data cleaning using Python

OTHER RESEARCH EXPERIENCE

Electronic Systems Laboratory & Advanced Concepts Laboratory | Georgia Tech Research Institute (Atlanta, GA) – *Paid Undergraduate RA (2019-2021)* | *REU Student (Summer 2019)*

2019 – 2021 *Project titles:* Social Networking Analysis Project (SNAP); Understanding Developmental, Cognitive, and Psycho-Social Factors Related to the Proliferation of Information and Online Behavior

Georgia Tech Vertically Integrated Projects (VIP) | Georgia Institute of Technology (Atlanta, GA) – Undergraduate RA

2018 - 2019 Project titles: Academic Resilience (Biomedical Engineering); Gravitational Wave (Physics)

Work Experience Lab | Georgia Institute of Technology School of Psychology (Atlanta, GA) – Undergraduate RA 2019 Project titles: Workplace Conflict, Emotions, and Strain; The Experience of Technology at Work

| (*advanced) | |
|---------------------------------|--|
| Programing: | Python*, R*, Rstudio*, Linux, Shell script (bash), MATLAB |
| Software & Surveying: | PsychoPy*, fMRIPrep*, FSL*, FreeSurfer, SPM12, Biopac (ECG, EDA), SPSS*, Excel*, Qualtrics*, RedCap, MetricWire, Prolific, Mturk, Pavlovia |
| Data Acquisition Techniques: | |
| Digital Design: | Canva*, HTML, WordPress, ScholarBlogs, Microsoft Office*, Adobe |

TECHNICAL SKILLS

PUBLICATIONS

Peer-Reviewed Publications

- Miller, A. B., Jenness, J. L., Elton, A. L., Pelletier-Baldelli, A., Patel, K., Bonar, A., Martin, S., Dichter, G., Giletta, M., Slavich, G. M., Rudolph, K. D., Hastings, P., Nock, M., Prinstein, M. J., & Sheridan, M. A. (2024). Neural Markers of Emotion Reactivity and Regulation Before and After a Targeted Social Rejection: differences Among Girls With and Without Suicide Ideation and Behavior Histories. *Biological Psychiatry*, 95(12), pp. 1100-1109, DOI: 10.1016/j.biopsych.2023.10.015
- Pelletier-Baledelli, A., Sheridan, M. A., Rudolph, M. D., Eisenlohr-Moul, T., Martin, S., Srabani, E. M., Giletta, M., Hastings, P. D., Nock, M. K., Slavich, G. M., Rudolph, K. D., Prinstein, M. J., & Miller, A. B. (2024). Brain network connectivity during peer evaluation in adolescent females: Associations with age, pubertal hormones, timing, and status. *Developmental Cognitive Neuroscience, 66*, DOI: 10.1016/j.dcn.2024.101357
- Gruhn, M., Miller, A. B., Eisenlohr-Moul, T. A., Martin, S., Clayton, M. G., Giletta, M., Hastings, P. D., Nock, M. K., Rudolph, K. D., Slavich, G. M., Prinstein, M. J., & Sheridan, M. A. (2023). Threat exposure moderates associations between neural and physiological indices of emotion reactivity in adolescent females. *Psychoneuroendocrinology*, 159, DOI: 10.1016/j.psyneuen.2023.106405
- Lee, K., Sayre, B., Martin, S., James, T. A., & Duarte, A. (2023). Covid-19-stress associated with worse sleep quality, particularly with increasing age. *The Journals of Gerontology: Series B*, 78(7), 1163-1168. DOI: 10.1093/geronb/gbac173
- Pelletier-Baldelli, A., Sheridan, M. A., Glier, S., Rodriguez-Thompson, A., Gates, K. M., Martin, S., Dichter, G., Patel, K., Bonar, A., Giletta, M., Hastings, P. D., Nock, M. K., Somerville, L., Slavich, G., Rudolph, K. D., Prinstein, M. J., and Miller, A. B. (2023). Social Goals in Girls Transitioning to Adolescence: Associations with Psychopathology and Brain Network Connectivity. *Social Cognitive Affective Neuroscience*, 18(1), DOI: 10.1093/scan/nsac058.
- Crooks, C. L., Hogg, J. L., Martin S. M., Grant, J., Lemoie, K., and Robbins, M. (2020). Understanding Generational Factors in the Workplace: Current Considerations for Telework Practices and the Digital Native. 2020 IEEE International Professional Communication Conference (ProComm), pp. 168-172, DOI: 10.1109/ProComm48883.2020.00033.

Manuscripts in Preparation

Pelletier-Baldelli, A., Martin, S. M., Machlin, L., Sheridan, M. A., Redic, M., Patel, K. K., Giletta, M., Hastings, P. D., Nock, M. K., Rudolph, K. D., Slavich, G. M., Prinstein, M. J., & Miller, A. B. (in prep). Threatening experiences, neural response to social evaluation, and internalizing psychopathology during adolescence.

POSTER & ORAL PRESENTATIONS (SELECTED)

(+Mentee co-author)

Sauceda, M.⁺, **Martin, S.**, Oshins, K.⁺, & Cohen, A. O. (November 2024). *The Impact of Anxiety on Pavlovian Conditioning and Extinction in Healthy Adults.* Poster presented at 2024 Better Together Conference, Atlanta, GA.

- McNeil, Z.+, Kumar, R., Martin, S., & Cohen, A. O. (July 2024). Association Between Caffeine Use and Negative Affect: in a Healthy Population of Adolescents and Young Adults. Poster presented at Summer Undergraduate Research Experience (SURE) 2024 Symposium, Atlanta, Georgia.
- Martin, S., Devarayapuram Ramakrishnan, S., & Cohen, A. O. (April 2024). *Investigating the Neural Mechanisms Underlying Positive Autobiographical Memory Retrieval Across Adolescence*. Poster presented at the 2024 Social and Affective Neuroscience Society (SANS) Conference, Toronto, Canada.
- Oshins, K. +, **Martin, S.,** Sauceda, M. +, & Cohen, A. O. (April 2024). Influences of positive reinforcement on learned threat associations across development. Poster presented at the 2024 Social and Affective Neuroscience Society (SANS) Conference, Toronto, Canada.
- Navarro, E., Martin, S., Carpenter, K., Copeland, W., Egger, H., & Sheridan, M. (March 2023). *The importance of social development in protecting against psychopathology in early childhood*. Poster presented at the 2023 Society for Research in Child Development Biennial Meeting, Salt Lake City, UT.
- Martin, S., Gruhn, M., Pelletier-Baldelli, A., Sheridan, M., Patel, K., Giletta, M., Hastings, P. D., Nock, M. K., Rudolph, K. D., Slavich, G. M., Prinstein, M. J., & Miller, A. B. (November 2022). *Childhood Threat Exposure Disrupts Associations between Cortisol Output in Response to Stress and Adaptive Processes during Cognitive Reappraisal in Adolescent Girls.* Poster presented at the Society of Neuroscience 2022 Conference, San Diego, CA.
- Pelletier-Baldelli, A., Martin, S., Sheridan, M. A., Gates, K. M., Patel, K. K., Bonar, A. S., Giletta, M., Hastings, P. D., Nock, M. K., Sommerville, L. H., Slavich, G., Rudolph, K. D., Prinstein, M. J., & Miller, A. B. (September 2022). The associations among puberty, brain development, and internalizing symptoms in girls transitioning to adolescence: A combined multivoxel pattern and brain network approach. Poster presented at the Flux Society Conference 2022, Paris, France.
- Pelletier-Baldelli, A., Martin, S., Somerville, L., Sheridan, M., Urban, C., Patel, K., Giletta, M., Hastings, P. D., Nock, M. K., Rudolph, K. D., Slavich, G. M., Prinstein, M. J., & Miller, A. B. (May 2022). The influence of puberty and age on brain functioning during a social observation fMRI task. Poster presented at the Social Affective Neuroscience Society Conference 2022. [virtual]
- Martin, S. and Duarte, A. (April 2022). Differences in the Effects of Aging on General Stress vs Financial Stress in the Context of COVID-19. Poster presented at the 2022 Cognitive Aging Conference, Atlanta, GA.
- Martin, S., Pelletier-Baldelli, A., Sheridan, M. A., Patel, K., Bonar, A., Giletta, M., Hastings, P. D., Nock, M. K., Somerville, L., Slavich, G., Rudolph, K. D., Prinstein, M. J., and Miller, A. B. (March 2022). *Amygdala Activation and Emotional Regulation in Early- and Post-Pubescent Girls.* Poster presented at the 2022 Biennial Meeting of the Society for Research on Adolescence, New Orleans, LA.
- Martin, S., Johnson, A., Roper, L, & Fazenbaker, S. (August 2020). *Managing Meals as a Freshman*. Workshop presented at Georgia Tech Week of Welcome. [virtual]
- Martin, S. & Crooks, C. (April 2020). Analysis and Application of DNAS Findings, Online Behavior, and Information Proliferation. Abstract submitted to the 2020 Georgia Tech Spring Undergraduate Research Symposium. [canceled by COVID-19]
- Martin, S. & Crooks, C. (July 2019). Information Proliferation and Online Behavior: DNAS Summary of Findings. Oral presentation at the Georgia Tech REU Showcase, Atlanta, GA.
- Dietrich, M., **Martin. S.**, McAuliffe, B., Morgan, S., Thomas, C., Newstetter, W., & Martin, C. (February 2019) *Beyond Health Minds: Evaluation and Continuation of Mental Health Surveying at Georgia Tech.* Poster presented at the 2019 Intercollegiate Mental Health Conference, Atlanta, GA.

MENTORING & INDIVIDUAL TUTORING

Emory University

| Undergraduate Research Assistants: | Katie Oshins (2023-present), Michelle Sauceda (2024-present) |
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| Summer REU Research Assistant: | Zoë McNeil (2024, co-mentee) (visiting scholar - Tuskegee University) |

Georgia Gwinnett College

Undergraduate Tutees: Emily Edwards (2024-present), Matthew Henderson (2020-2022)

SERVICE & VOLUNTEER WORK

| 2023 - 2024 | STEM Professional School Partnership Program Science ATL (Atlanta, GA) - STEM Professional Visited high school classes monthly, taught the scientific method, and oversaw semester-long research projects that bridged psychology with curriculums in biology, environmental science, and physical science Hosted students at Emory to introduce fMRI, ECG, and other research methods to high schoolers | |
|------------------------------|--|--|
| 2024 | Atlanta Science Festival Science ATL (Atlanta, GA) - Volunteer Led hands-on cognitive neuroscience activities and research discussions with parents and kids (ages 3-17) | |
| 2022 – 2023 | CIRCLE Lab Onboarding Design Committee University of North Carolina at Chapel Hill (Chapel Hill, NC) - <i>Committee Chair</i> Reformed the new member onboarding process to be more aligned with the lab and university's policies on Diversity, Equity, and Inclusion, and help with transitioning new members into lab and Chapel Hill Established affinity groups to support lab members from historically marginalized backgrounds | |
| 2022 | Walk for Hope Foundation of Hope (Raleigh, NC) - Fundraising Team Leader Organized fundraising team and participated in 5k event in solidarity for those living with mental illness. | |
| 2021 – 2023 | CIRCLE Undergraduate Advising Team University of North Carolina at Chapel Hill (Chapel Hill, NC) - Co-Lead Facilitated undergraduate research assistant involvement in the lab, including planning and leading undergraduate cohort meetings and mentoring undergraduate independent projects | |
| 2019 – 2021 | Mental Health Student Coalition (MHSC) Georgia Institute of Technology (Atlanta, GA) - Director (2020 – 2021); Professional Services Liaison (2019 –2020); General Member (2019 –2020) Aimed to bridge the gap between students and administration on mental health needs of students and to | |
| | identify where the community is most at risk. Collaborated with various campus departments to identify the most effective wellbeing resources to develop by incorporating best practices from the 2019 Intercollegiate Mental Health Conference at Georgia Tech. | |
| 2020 - 2021 | Mental Health Network Georgia Institute of Technology (Atlanta, GA) - General Member | |
| | • Collaborated with various departments to improve mental health resources for students and implement mental health programs in other student organizations advocate for student with mental illness | |
| 2019 - 2020 | National Alliance of Mental Illness Georgia (NAMI-GA) (Decatur, GA) - Volunteer | |
| | • Researched and contacted healthcare providers to update NAMI hotline resources by Georgia county. | |
| 2018 - 2019 | Science and Math Research Training (SMaRT) LLC Georgia Institute of Technology (Atlanta, GA) - Ambassador (2018 – 2019); Team Leader (2018) | |
| | • Mentored first-year SMaRT students and aided in college transition by providing emotional support, advising, helping find on-campus research opportunities to first year students | |
| Memberships & Certifications | | |
| Societies | : Psychin' Out (2021-present), Social and Affective Neuroscience Society (2023-present), Society for Neuroscience (2022, 2023), FLUX Society (2022, 2023), Society for Research on Adolescents (2022) | |

Certifications: CITI (Responsible Conduct of Research Basic Course, Social/Behavioral Research Investigators and Key Personnel Basic Training, IRB Members Refresher Course) QPR (Question, Persuade, Refer) mental health crisis intervention training