Micaela V. McCall

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micaelamccall.com   github.com/micaelamccall   linkedin.com/in/micaelamccall

SKILLS

Data Science	Python (Pandas, NumPy, Scikit-learn, Matplotlib/Seaborn, & more), R (Tidyverse, various statistical packages)**,** predictive analytics/machine learning, statistical modeling (univariate and multivariate modelling, parametric and nonparametric statistics), Git/Github, Unix/Linux, SQL
Research	FSL (MRI and fMRI analysis), Microsoft Suite, Prism, multidisciplinary collaboration, design of written and verbal reports, clinical communication, MATLAB,
Other	Spanish (proficient)

EDUCATION

Emory University, *BS in Neuroscience and Behavioral Biology, BA in Religion*   *2014-2018*
- **Honors**: Highest Honors in Neuroscience Research, Phi Beta Kappa, Nu Rho Psi (National Neuroscience Honor Society), Theta Alpha Kappa (National Religious Studies Honor Society).   *Atlanta, GA*

PROJECTS & PUBLICATIONS   more at micaelamccall.com ⧉

Exploring Patient Satisfaction and Readmission in Medically Underserved Areas (GitHub)   *09-2019*
NIH Foundation for Advances Education in the Sciences, Bioinformatics and Data Science   *Bethesda, MD*
- Munged data from multiple API queries, totalling over 2400 rows, and visualized factor relationships using Python.

Using Supervised Learning to Classify Drug Consumption Behavior (GitHub)   *11-2018*
NIH Foundation for Advances Education in the Sciences, Bioinformatics and Data Science   *Bethesda, MD*
- Trained logistic regression, random forest, and SVC models on survey data to predict drug use using Python.

Pleasant Deep Pressure: Expanding the Social Touch Hypothesis   *09-2018*
National Center for Complementary and Integrative Health   *Bethesda, MD*
- Processed and statistically analyzed fMRI data using Python and FSL; created visualizations for manuscript.
- Manuscript in preparation: by Laura K. Case, Jaquette Liljencrantz, **Micaela V. McCall,** Megan Bradson, Aaron Necaise, Justin Tubbs, Hakan Olauzzon, Binquan Wang, & M. Catherine Bushnell.

Honors Thesis: Analyzing Non-verbal Behavior Throughout Recovery in a Sample of Depressed Patients Receiving Deep Brain Stimulation   *05-2018*   *Atlanta, GA*
Emory University
- Designed project, collected, and analyzed behavioral data in R using factor analysis, analysis of variance, and regression.
- Manuscript in preparation: by **Micaela V. McCall,** Patricio Riva-Posse, M.D., Helen S. Mayberg, M.D., Andrea L.Crowell, M.D.

CURRENT POSITION

Research Analyst   *05-2018 -*
National Institutes of Health, National Center for Complementary and Integrative Health   *Present*
- Facilitated patient visits, consulted with patients on study procedures and concerns   *Bethesda, MD*
- Built pipelines in R and Python for analysis of behavioral and physiological data (fMRI, autonomic)
- Implemented experimental procedures with an eye towards data quality and bias
- Designed data visualizations, written, and verbal reports for multidisciplinary audiences

PAST EXPERIENCES

Undergraduate Neuroscience Research Honors Candidate
Emory University School of Medicine, Dept. of Psychiatry
- Earned Highest Honors in research
- Developed projects to collect and statistically examine physiological and quantitative behavioral data using R
- Presented results to diverse, technical and non-technical thesis committee

06-2017 -
05-2018
Atlanta, GA

Research Assistant
Mauritian Laboratory for Experimental Anthropology
- Implemented ethnographical research methods (conducted interviews with local Mauritians, collected saliva samples during local sword-climbing rituals)
- Designed research project to explore religious syncretism

07-2016
La Gaulette,
Mauritius

Undergraduate Research Assistant
Yerkes National Primate Research Center
- Collected observational social behavior of infant Rhesus macaques
- Examined macaque eye-tracking data to assess the effect of oxytocin dosing on on social gaze preference

08-2015 -
05-2017
Atlanta, GA

PRESENTATIONS

Laura K. Case PhD, **Micaela V. McCall,** Megan Bradson, M. Catherine Bushnell PhD. Effect of Naloxone on Touch Intensity and Pleasantness. Poster presented at American Pain Society Scientific Meeting.

04-2019
Milwaukee, WI

Micaela McCall, Andrea Crowell MD, Lydia Denison BS, Patricio Riva Posse MD, Helen Mayberg MD. Non-verbal Behavior in Depression Patients Receiving Deep Brain Stimulation. Poster presented at Emory University Neuroscience and Behavioral Biology Undergraduate Research Symposium.

04-2018
Atlanta, GA

Micaela McCall, Andrea Crowell MD, Helen Mayberg MD. Acute and Chronic Deep Brain Stimulation Effect on Heart Rate Variability. Poster presented at Emory University Summer Undergraduate Research Symposium.

07-2017
Atlanta, GA

Micaela McCall, J. M. Brooks, T. J. Jonesteller, S. Moss, T. R. Heitz, L. A. Parr, PhD. The effect of chronic oxytocin on the gaze preferences of infant macaques. Poster presented at Emory University Fall Undergraduate Research Symposium.

08-2016
Atlanta, GA

TRAININGS & WORKSHOPS

Machine Learning in Python at FAES Bioinformatics and Data Science, Bethesda, MD	*08-12, 2019*
NVIDIA GPU Technology Conference, Washington DC	*11-2019*
Artificial Intelligence in Healthcare: From Prevention & Diagnostics to Treatments, Bethesda, MD	*10-2019*
IBM Hands-on Introduction to Machine Learning / Deep Learning Workshop, Bethesda, MD	*11-2019*
Maryland Neuroimaging Retreat, Baltimore, MD	*04-2019*
Discovery and Validation of Biomarkers to Develop Non-Addictive Therapeutics for Pain, Bethesda, MD	*11-2018*

EXTRAS

Buddhism
I am involved in the DC insight meditation community and I served as the President of the Emory Buddhist Club, hosting weekly meditations led by ordained Buddhist teachers of various traditions.
I studied abroad in India, living in the Tibetan Buddhist community in exile. There, I completed a research project on resiliency in the Tibetan community in exile, including primary source research and interviews.

Activism
I am passionate about involvement in LGBTQ and intersectional feminist causes. I served as Conversations Chair of the Emory Feminists in Action club, designing and promoting weekly discussions on various feminist and intersectional topics, and initiating dialogues with other direct-action-focused clubs on campus.

Mentorship
In my current position, I mentor summer interns and college students. In college, I served as a Peer Mentor in the Emory College Undergraduate Research Partners Programs, meeting one-on-one with Freshman research "partners" and designing professional development and ethics trainings with graduate mentors.