

# Audrey Drotos

adrotos@umich.edu  
Ann Arbor, Michigan

## EDUCATION

**University of Michigan**, Ann Arbor, MI

*August 2019 – Present*

- Ph.D. in Neuroscience, Rackham Graduate School
- G.P.A. 4.0/4.0

**Michigan State University**, East Lansing, MI

*Sept. 2015 -- May 2019*

- B.S. in Neuroscience, Lyman Briggs College of Science
- B.A. in Music (Cello), College of Music
- Honors College
- G.P.A. 4.0/4.0

## RESEARCH EXPERIENCE

**Laboratory Manager** – Timing, Attention, and Perception Laboratory, East Lansing, MI *March 2018 – May 2019*

- Trained new lab members on research protocols, data analysis, and IRB adherence. Met individually with lab members regularly to facilitate learning of new skills and protocols.
- Maintained software on lab computers, electronic files, and participant files. Ordered new supplies for the lab when needed and worked with tech department to optimize technology for active projects.
- Oversaw research assistant schedules and coordinated running participants in the lab across multiple projects.
- Wrote data analysis protocols using Excel, SPSS, and MATLAB for multiple projects and trained lab members on these protocols.

**Research Assistant** – Timing, Attention, and Perception Laboratory, East Lansing, MI *August 2016 – March 2018*

- Developed hypotheses and helped to design experiments in topics related to perceptual grouping, rhythm, melodic tempo determination, and speech in noise perception
- Collaborated with team members to improve experiments, troubleshoot problems, and develop procedures for data collection and analysis.
- Analyzed, interpreted, and visualized data using Excel and SPSS software.

**Laboratory Assistant** – Phycotech, Inc., Saint Joseph, MI

*May 2016 – August 2016*

- Prepared slides for counting of various aquatic plants and plankton to identify potentially harmful species of algae present.
- Taught middle school students in a hands-on curriculum called "Upstream" that involved testing parameters in a stream and learning about ecology.
- Investigated environmental sustainability as it relates to water systems, particularly the Great Lakes, and focused on "green" options in a laboratory setting to combat climate change.

**Student Researcher** — Honors Research Seminar, East Lansing, MI

*August 2016 – May 2016*

- Explored the core issues at the intersection of public policy and epidemiology in relation to women's health through the study of published literature.

- Examined the epidemiological paradox from the perspective of birth outcomes for native and non-native mothers.
- Identified specific cultural factors that led to a correlation between assimilation into American culture and declining birth outcomes.

**Student Action Editor** — ReCUR Research Magazine, East Lansing, MI *September 2015 – May 2016*

- Located multiple faculty reviewers for submitted manuscripts based on content and research area and contacted ten to twenty reviewers for each manuscript using Open Journal Systems to obtain reviews.
- Analyzed reviews to determine changes that needed to be made to each manuscript before publication and submitted action letters to the authors.
- Followed up with each author and organized manuscripts in the system so that they could be published in a timely manner.

**Field Researcher** – Michigan State University Science Festival, East Lansing, MI *April 2016*

- Collected data from a diverse group of over a thousand individuals who participated at the festival, both on and off site at various events.
- Interviewed over fifty individuals at the festival to gather feedback for use in creating next year's festival.
- Entered surveys into iPads for use in the EvalFest cloud system to determine ways to improve the festival.

## LEADERSHIP EXPERIENCE

**Learning Assistant** – Lyman Briggs College, East Lansing, MI *August 2018 – May 2019*

- Co-taught two introductory chemistry lab for students in the Lyman Briggs College with another undergraduate learning assistant.
- Facilitated laboratory skills for students, answered questions about experiments, and developed critical thinking skills through the writing of laboratory reports.
- Assisted students by holding weekly office hours to answer questions and explain experiments.

**Resident Assistant** – MSU Residential Services, East Lansing, MI *August 2016 – May 2019*

- Supported fifty residents in their transition into college and during the school year both academically and socially in order to ensure their success and well-being.
- Developed floor events each semester to educate and engage residents in order to create a more diverse and accepting community.
- Managed conflicts between residents, particularly roommates, and encouraged compromises to maintain a positive living environment.

**Site Leader** - Alternative Spartan Breaks, Hyatsville, MD *March 2017*

- Supported nine college students on a spring break service trip to Hyatsville, Maryland for one week.
- Coordinated rental vehicles, meal preparation, and educational activities for reflection and social justice initiatives on the trip.
- Communicated with the service site to ensure engagement of students and highest level of service was provided to the community.

## COMMUNITY ENGAGEMENT & SERVICE

**Girls Who Code Mentor** – Department of Computational Medicine & Biology, Ann Arbor, MI *January 2019*

- Taught weekly programming lessons in Python to high school women in the Ann Arbor area.
- Mentored a team of two girls on an independent capstone programming project, culminating in a final presentation.

**TAP Lab Presenter** – MSU Neuroscience Fair, East Lansing, MI

*April 2018*

- Created a short version of the Stroop task paradigm that students and adults could participate in at a booth.
- Explained the science behind the Stroop task to students and parents and presented with more information about experiments currently being performed in the TAP Lab.

**Chemistry Group Presenter** – MSU Science Festival, East Lansing, MI

*April 2018*

- Developed a short chemistry demonstration with other MSU students for a variety of ages that taught the basic scientific concept of acid/base reactions
- Presented the experiment at the MSU Science Festival as part of a small group and answered audience questions.

**Student Volunteer** – Spartan Day of Service, East Lansing, MI

*September 2015, 2016, 2017*

- Participated in day-long service projects in the local community in collaboration with other members of the Residence Education & Housing Services at MSU.
- Worked on various projects including stocking and serving at a food pantry, assisting with painting of a local day care, and landscaping for a nursing home.

**Music Engagement Intern** - Logan Autism Center, Saint Joseph, MI

*May 2016 – August 2016*

- Designed a weekly music curriculum for children on the autism spectrum to enhance their learning and speech skills.
- Created learning materials for autistic children to aid word recognition and pronunciation during therapy sessions.
- Presented a daily group time activity to introduce and encourage group social skills and classroom behavior to assist in the transition into school.

**Medical Oncology Volunteer** - Sparrow Health System, East Lansing, MI

*January 2016 – May 2016*

- Supported fifty patients and their families on the medical oncology floor by providing social support and attending to basic needs.
- Collaborated with the charge nurse each shift to identify patients in need of companionship and provide it.
- Responded to patient and family needs during the day and consulted with nurses to provide the highest standard of care.

**Chemistry Day Presenter** - Impression 5 Science Museum, Lansing, MI

*October 2015*

- Designed a scientific acid/base demonstration for elementary school students and a poster explaining the science underlying the reaction.
- Performed the procedure many times during a science symposium to engage more students in science and increase interest in STEM fields of study.
- Answered questions from students and explored different aspects of the experiment with them to encourage curiosity and excitement for science.

**Volunteer** - Honors College Service Club, East Lansing, MI

*September 2015 – May 2016*

- Identified needs in the community that college volunteers could respond to in a meaningful way.
- Collaborated with leadership in the club to engage new students in recruitment efforts and increase the outreach of the group.
- Impacted the East Lansing area through events like Special Olympics, campus clean-ups, and fundraisers for area high schools.

**Student Mentor** - Honors Times Two Gifted Mentoring, East Lansing, MI September 2015 – May 2016

- Designed a personalized curriculum for two gifted kindergarten students to enhance their academic experience.
- Engaged them in hour-long sessions each week with an emphasis on reading and writing skills, including poetry writing.

## PRESENTATIONS & PUBLICATIONS

**Drotos, A.,** Eberle, A., Vroegop, B. (April, 2019) "Effects of Pitch Characteristics on Perceived Musical Tempo." [Poster] *17<sup>th</sup> Annual Rhythm Production and Perception Workshop*. Traverse City, MI.

Dec, S., **Drotos, A.,** Clancy, P., Mamidipaka, A. (April, 2019) "How Talker Rhythm Affects Speech Understanding in Noise." [Poster]. *University Undergraduate Research and Arts Forum*. East Lansing, MI. \*Grand Prize Award Winner

**Drotos, A.,** Eberle, A., Vroegop, B. (April, 2019) "Effects of Pitch Characteristics on Perceived Musical Tempo." [Poster] *University Undergraduate Research and Arts Forum*. East Lansing, MI.

VanHandel, L., **Drotos, A.,** McAuley, J.D. (July, 2018) "Relation between melodic characteristics and tempo determination." [Talk]. *15<sup>th</sup> International Conference on Music Perception and Cognition*. Montreal, Canada.

**Drotos, A.,** VanHandel, L., McAuley, J.D. (July, 2018) "Do pitch characteristics influence tempo determination?" *Mid-Michigan Summer Undergraduate Research Experience*. East Lansing, MI.

VanHandel, L., **Drotos, A.,** McAuley, J.D. (June, 2018). "Musical factors affect tempo determination." [Talk]. *University of Cambridge*. Cambridge, U.K.

VanHandel, L., **Drotos, A.,** McAuley, J.D. (June, 2018). Relation between melodic characteristics and tempo determination." [Conference Proceedings Paper] *15<sup>th</sup> International Conference on Music Perception and Cognition*. Montreal, Canada.

**Drotos, A.,** Dec, S. (May, 2018) "Musical training influences speech understanding in noise." [Poster Presentation.] *Michigan Society for Neuroscience Meeting*. Detroit, MI.

**Drotos, A.,** Dec, S., Banach, O., Russel, K., McAuley, J.D. (April, 2018) "Individual differences in understanding speech in difficult listening conditions." [Poster] *University Undergraduate Research and Arts Forum*. East Lansing, MI.

**Drotos, A.,** Eberle, A., Clancy, P., Wundrach, D., VanHandel, L., McAuley, J.D. (April, 2018) "Perceived "correct" tempo of a piece of music is dependent on its starting tempo." [Poster] *University Undergraduate Research and Arts Forum*. East Lansing, MI.

VanHandle, L., **Drotos, A.**, McAuley, D. (August, 2017) "Melodic Characteristics and Tempo Determination." [Talk] *Society for Music Perception and Cognition Meeting*. San Diego, CA.

**Drotos, A.**, Dec, S., Amick, L., McAuley, J.D., Kidd, G. (July, 2017) "Does Musical Training Enhance Speech Understanding in Noise?" [Poster]. *Mid-Michigan Summer Undergraduate Research Experience (Mid-SURE)*. East Lansing, MI.

Amick, L., **Drotos, A.**, Dec, S., Robison, S., McAuley, D. (July, 2017) "Perceived grouping in auditory rhythms: How do we know when one sequence ends and another begins?" [Talk] *16<sup>th</sup> Rhythm Production and Perception Workshop*. Birmingham, England.

**Drotos, A.**, Dec, S. (May, 2017) "Does Musical Training Enhance Speech Understanding in Noise?" [Poster Presentation.] *Michigan Society for Neuroscience Meeting*. Ann Arbor, MI.

Amick, L. **Drotos, A.**, Dec, S., Robison, S. (April, 2017) "Perceived Grouping in Auditory Rhythms: How Do We Determine When One Sequence Ends and Another Begins?" [Talk] *Symposium on Timing and Rhythm*. Hamilton, Ontario.

**Drotos, A.**, Dec, S., Robison, S. (April, 2017) "How Does Temporal Context Affect the Perception of Grouping in Musical Rhythms?" [Poster] *University Undergraduate Research and Arts Forum*. East Lansing, Michigan.

**Drotos, A.** Baty, N., Glessner, S., Rowland, S., Younker, A. (April, 2017) "Contribution of Melodic Factors to Tempo Determination." [Poster] *University Undergraduate Research and Arts Forum*. East Lansing, Michigan.

Amick, L., **Drotos, A.**; McAuley, J.D. (October, 2016) "How do we decide when an auditory sequence ends and another begins?" [Poster] *Auditory Perception, Cognition, and Action Meeting*. Boston, Massachusetts.

Appaigyei-Dankah, E.; **Drotos, A.**; Pike, G. (April, 2016) "Birth Outcome and Citizenship Disparities between Native and Non-Native Mothers in the U.S." [Poster]. *Michigan State University Undergraduate Research & Arts Forum*. East Lansing, Michigan.

## HONORS & AWARDS

Rackham Predoctoral Fellowship Program	November 2019
MSU Undergraduate Research & Arts Forum 2019 Poster Grand Prize Award	July 2019
MSU Board of Trustees Award Winner	May 2019
Marshall Scholarship Nominee	October 2018
Michigan State University Dean's List (received each semester)	September 2015 – May 2019
St. Joseph Kiwanis Club Scholarship (received each semester)	September 2015 – May 2019
Lyman Briggs College Conference Travel Grant	May 2017
MSU College of Music Conference Travel Grant	June 2017
MSU Undergraduate Research Conference Award	June 2017
MSU Honors College Cole Excellence Award	May 2017
Michigan State University President's Volunteer Service Award	January 2017
Dr. Frederic B. Dutton Lyman Briggs Scholarship Award	May 2016

## SKILLS

- Classically trained cellist
- Intermediate Spanish-speaking abilities (ACTFL Level: Intermediate-Mid)
- Data analysis and visualization using statistical software such as SPSS
- Programming in MATLAB