

Brooklyn Crabtree
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EDUCATION

University of Georgia, Athens, GA Expected May 2026
Neuroscience PhD Program; GPA: 4.00
Doctoral Student

Georgia Institute of Technology, Atlanta, GA December 2020
Bachelor of Science, Neuroscience; GPA: 3.63
Graduated Highest Honors (equivalent to *summa cum laude*)
Psychology Minor and Undergraduate Research Option
Undergraduate Thesis: *Representing the Effect of Multiple Alternatives and Information Strength on Confidence in Perceptual Decision Tasks*; PI: Dobromir Rahnev, PhD

RESEARCH EXPERIENCE

Research Assistant, Athens, GA Fall 2023 - present
Youth Development Institute (YDI), PIs: Assaf Oshri, PhD; Charles Geier, PhD

- *Focus*: Effects of childhood exposure to threat, deprivation, and unpredictability in the family and neighborhood environments on cortical networks and future resilience
- Conducting analysis from the Adolescent Brain Cognitive Development (ABCD) study dataset using structural equation modeling and processing of functional MRI data
- Data collection for the Building Resilience And Nurturing Children's Health (BRANCH) study including biospecimen samples, psychometric assessments, and both structural and functional MRI scans with children ages 6-8 years old
- Mentor undergrad RAs for data analysis and research communication for lab presentations and poster symposiums

Research Assistant, Athens, GA Summer 2021 - Fall 2023
Cognition and Dexterity (CoDex) Laboratory, PI: Jing Xu, PhD

- *Focus*: Effects of impairment and enhancement on dexterity in the upper limbs and the neural mechanisms behind different dexterous tasks
- Investigating the effects of cerebral palsy on dexterity in children, the effects of handedness on dexterity in individuation and pinch tasks, the effects of TMS conditioning on upper extremity h-reflex, the effects of creativity on motor learning in a novel pinch task

- Assist with experimental and analytical design, data collection, lab organization, and research presentations
- Mentor team of undergrad RAs for data collection, analysis, and research communication

Undergraduate Research Assistant, Atlanta, GA Fall 2019 - Fall 2020

Center for Advanced Brain Imaging, Rahnev Lab, PI: Dobromir Rahnev, PhD

- *Focus*: Effects of information strength on confidence in perceptual decision-making
- Schedule participants through SONA system, collect and safely store participant information documents, run participants, collect and save data in Matlab
- Coded data analysis in Matlab for undergraduate thesis

SELECTED PAPERS AND PRESENTATIONS

Crabtree, B., Khan, O. A., Rai, D., Whitten, S. V. W., Hines, D., Colquitt, G., Modlesky, C. M., Xu, J. (*for review*). Quantifying finger individuation impairment in 3D in children with cerebral palsy. *Neurorehabilitation & Neural Repair*.

Crabtree, B., Khan, O. A., Hines, D., Barnes, C. A., Modlesky, C. M., Xu, J. (2022, July). Assessing impaired finger individuation abilities in children with cerebral palsy. Poster presented at the meeting of Neural Control of Movement Annual Meeting, Dublin, Ireland.

Crabtree, B., Khan, O. A., Wilhoite, S. V., Pascal, J., Iyer, P. R., Colquitt, G., Modlesky, C. M., Xu, J. (2021, November). Assessing finger individuation abilities in cerebral palsy using a 3-dimensional force device. Poster presented at the meeting of Society for Neuroscience, virtual.

HONORS AND AWARDS

Student Travel Funding, University of Georgia Fall 2021, Summer 2022, Fall 2023
Department of Kinesiology

Faculty Honors, Georgia Institute of Technology Fall 2018, Fall 2019, Fall 2020
GPA of 4.00, at least 12 hours of coursework on a letter grade basis

Dean's List, Georgia Institute of Technology Fall 2017, Spring 2019, Spring 2020
GPA of 3.00 or higher, at least 12 hours of coursework on a letter grade basis

TEACHING EXPERIENCE

Teaching Assistant, Athens, GA Spring 2023
 Kinesiology Department at UGA

Biomechanics Course, Instructor: Jing Xu

- Lead two sections of 20 students of the lab course to teach students how to use biomechanical measurements and to design, conduct, and report an experimental design
- Discussed and modified lab resources and instructions, graded assignments
- Developed and led review sessions for instructional exams, conducted office hours to answer student questions about the instructional material
- Received positive feedback from students about the clear communication and expectations provided as well as the willingness and ability to help them find the answers to their questions

Teaching Assistant, Baton Rouge, LA and Houston, TX Summer 2019
 Duke TIP Summer Studies Program at LSU

Neuropsychology Course, Instructor: Julie Berhane

- Monitoring classroom of 20 gifted high school students in a summer neuropsychology class during two 3-week terms for 44 hours a week
- Prepared learning activities about neuroimaging techniques and abnormal psych treatments to explore neuropsychological topics
- Led discussions during evening study about material from class and further questions from the students
- Helped students design neuropsychological research proposals
- Emergency management planning and execution during the mid-term evacuation to Rice University campus

SERVICE AND WORK EXPERIENCE

EXPLORE LLC, Student Organization Fall 2017 to Fall 2020
 Georgia Institute of Technology, Atlanta, GA

- A college community dedicated to promoting undergraduate research and pre-medical experience for freshmen through program alumni and faculty connections
- Participated in and facilitated event planning, set-up, and take-down
- Volunteered for recruiting and outreach events

Accounting Intern, Employment Summer 2016, 2017, and 2018
 The Milner Agency, Lawrenceville, GA

- Providing clerical assistance to the accounting department

- Considerable data entry experience; updating commission payments on multiple excel grids and within software platform
- Scanning documents and saved to company's online drive; sorting and filing documents within the drive

TECHNICAL SKILLS

Computational:

Proficient in: Microsoft Office Suite, R/RStudioStatisticalSoftware, MATLAB, Qualtrics

Experience in: Python, Psychtoolbox, C++, Adobe Creative Suite, AFNI

CITI Training Certifications:

- Bio-Medical Research (July 22, 2021)
- Biomedical Responsible Conduct of Research Course (July 22, 2021)
- Social and Behavioral Responsible Conduct of Research Course (July 22, 2021)
- Social and Behavioral Research (September 9, 2021)

Policy for Programs and Activities Serving Minors Certifications:

- Staff Code of Conduct (November 15, 2023)
- Protecting Youth Training (November 15, 2023)
- UGA's Non Discrimination and Anti-Harassment and USG's Sexual Misconduct Policies (November 15, 2023)

Additional Certifications:

- MRI Safety Training (October 25, 2021)
- QPR Certification (April 30, 2019)

REFERENCES

Assaf Oshri, Associate Professor of Human Development and Family Sciences

University of Georgia

(706) 542-8874, oshri@uga.edu

Charles Geier, Professor of Human Development and Family Sciences

University of Georgia

(706) 713-2739, charles.geier@uga.edu

Lawrence Sweet, Professor of Psychology

University of Georgia

(706) 542-0746, sweet@uga.edu

Jesse Schank, Associate Professor of Physiology and Pharmacology
University of Georgia
(706) 542-0661, jschank@uga.edu

Lisa M. Renzi-Hammond, Associate Professor of Psychology
University of Georgia
(706) 542-2539, lrenzi@uga.edu

Anna Abraham, Professor of Neuroscience
University of Georgia
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