

Cognitive Science at Lehigh

Fall 2020

Director's Corner



As spring semester approaches, it's hard to believe that soon we'll be closing out a whole year of hunkering down, teaching and learning remotely. It's a good thing we didn't know last March just what we were getting into or the whole thing would have seemed even more overwhelming.

Absence does make the heart grow fonder. I was on campus the other day, and it felt great to have high-speed internet, a good office chair, and a laser printer. Best of all was seeing several colleagues who had escaped from their Zoom boxes. Yes, they still exist in three dimensions and are still capable of unscheduled chats!

Despite everything, Lehigh students remain deeply engaged in their studies and preparing for their futures. We have a record-setting seven Cognitive Science senior majors this year, with an even more record-setting 11 juniors and 12 sophomores declared. Increased media attention to cognitive science, plus the recent addition of a B.S. degree as well as B.A., may be driving the trend. I met with each major by Zoom during the fall advising period, and all of them were well-prepared, working hard at their remote studies, and truly excited about studying Cognitive Science. Our current circumstances really underscore the importance of topics at the intersection of minds, brains, and computers.



Image: © BrainGate 2, www.braingate2.org

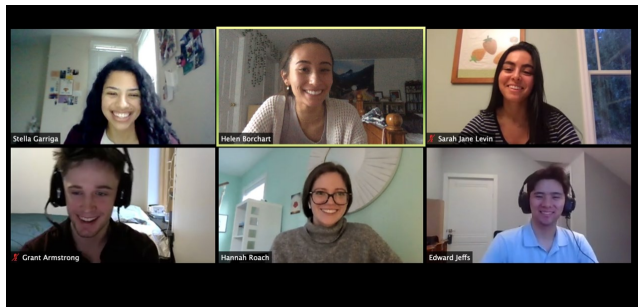
Student Spotlight

Meet Brenda Cuadra-Arguello, a junior double-majoring in Cognitive Science and Psychology who is also minoring in Health, Medicine and Society! She plans to go to graduate school in Clinical Neuropsychology and work at a hospital or even open her own clinic in her home country of Nicaragua. She also dreams of opening a tennis academy for kids with intellectual disabilities and auditory processing deficiencies. She was attracted to Cognitive Science by its interdisciplinarity, allowing her to take classes from fields including neuroscience, computer science, and philosophy. She has been enjoying program activities including the meet-and-greets for majors and the talk series.

Brenda is a world traveler, having been to 32 countries. An especially memorable part of her Lehigh experience was Study Abroad through CIEE (Council on International Educational Exchange) in Berlin and Copenhagen. Her current job at Lehigh's Center for Gender Equity has helped her grow as a person and has taught her many valuable life lessons.



News & Events



Seniors at their Zoom proposal presentations. Top: Stella Garriga, Helen Borchart, Jane Levin. Bottom: Grant Armstrong, Hannah Roach, Edward Jeffs. (Missing: Jaina Hausser).

Upcoming events: Feb 8—Alumni panel; Mar 5—Meir Meshulam (Princeton University); April 2—Dustin Stolz (Lehigh University)

Watch for talk titles and other event updates on our program webpage, <https://cogsci.cas2.lehigh.edu/>

Cognitive Science Program Senior Thesis Proposal Presentations

Grant Armstrong
Stylistic Imitation in First Person Shooter Games using Data Driven, Spatial Analytics
Adviser: Professor Dan Lopresti

Helen Borchart
Query Refinement in Dataset Search
Advisers: Professor Brian Davison and Professor Haiyan Jia

Stella Garriga
Effect of COVID-19 Reminders or Distractions on Learning and Memory
Adviser: Professor Almut Hupbach

Jaina Hausser
The Declining Insect Population Problem: Evaluating Negative Attitudes Towards Insects Using Sentiment Analysis.
Adviser: Professor Barbara Malt

Eddie Jeffs
Biological Matching of the Leaky Integrate-and-Fire Model
Advisers: Professor Zhiyuan Yan and Professor Xiaochen Guo

Jane Levin
Impact of Context on Cognitive Control
Adviser: Professor Nancy Carlisle

Hannah Roach
Variability in Flashbulb Memory of the Onset of the COVID-19 Pandemic
Adviser: Professor Almut Hupbach

Monday, December 7, 2020 | 3:00 p.m. | VIRTUAL
ZOOM LINK: <https://lehigh.zoom.us/j/99763978680>

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Spotlight on Alumni



Sara Mason '17 combined her Cognitive Science major with minors in Business and Science, Technology, & Society! Her credentials are a great match for her job at Brand Networks, a marketing tech company. She works on social advertising, which means she promotes advertisements on social channels

such as Facebook, Instagram, Pinterest, Snapchat, and TikTok. She assists clients in the planning phase, providing media plans and recommendations for campaigns, in addition to executing, optimizing, and reporting on media in the market. Sara enjoys the strategy and reporting aspect of her job the most - She is able to work through the end results of a campaign to see how successful initial planning was and improve performance over time. Having a background in Cognitive Science has allowed Sara to understand the mind from the perspective of multiple disciplines, which helps her gain insight on why or how consumers might think about or engage with the media being promoted.

Research Roundup

Just some of the many recent faculty publications!

Brandone, A.C., Stout, W., & Moty, K. (2020). Intentional action processing across the transition to crawling: Does the experience of self-locomotion impact infants' understanding of intentional actions? *Infant Behavior and Development*, 60, <https://doi.org/10.1016/j.infbeh.2020.101470>

Geng, J.J., Won, B.Y., & **Carlisle, N.B.** (2019). Distractor ignoring: Strategies, learning, and passive filtering. *Current Directions in Psychological Science*, 28, 600-606.

Jung, M.F., **DiFranzo, D.**, Shen, S., Stoll, B., Claire, H. & Lawrence, A. (2020). Robot-assisted tower construction—A method to study the impact of a robot's allocation behavior on interpersonal dynamics and collaboration in groups. *ACM Transactions on Human-Robot Interaction (THRI)*, 10, 1-23.

Taylor, M.A. & **Stoltz .D.S.** (2020). Concept class analysis: A method for identifying cultural schemas in texts. *Sociological Science*, 10.15195/v7.a23



Cognitive Science:
The Interdisciplinary
Study of Mind



Cognitive Science Program

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