Kim Scott

Contact Information

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Education and employment

Massachusetts Institute of Technology, Cambridge, MA — **Oct 2017 - present**
Research scientist

Massachusetts Institute of Technology, Cambridge, MA — **Feb 2018**
Ph.D., Brain and Cognitive Sciences
Advisor: Laura Schulz

California Institute of Technology, Pasadena, CA — **July 2010 - July 2011**
Research assistant, Lester lab

California Institute of Technology, Pasadena, CA — **June 2010**
B.S., Engineering and Applied Sciences (Computation and Neural Systems)

Awards and Funding

NSF Developmental Sciences award 1823919 ($584,445) — **2018-2021**
"Expanding access to webcam-based online data collection for developmental research"
PI: Kim Scott, co-PI: Laura Schulz

Chan Zuckerberg Initiative, "Reaching Every Reader" project — **2018-2022**
Subcontract for tool development, $328,761

Jeff Halis, Lookit platform fund gift ($100,000) — **2017-2018**

American Association of University Women dissertation fellowship ($20,000) — **AY 2016-2017**

NSF Behavioral and Cognitive Sciences award 1429216 ($369,999) — **2014-2017**
"Lookit: Online interface for large-scale developmental studies"
PI: Laura Schulz

Angus MacDonald Award for Excellence in Undergraduate Teaching, MIT — **2013, 2015**

National Science Foundation Graduate Research Fellowship — **2013-2016**

Ida M. Green Fellowship, MIT — **AY 2011-2012**

Perpall Speaking Competition: Finalist, Caltech — **2009**

Perpall Speaking Competition: 3rd place, Caltech — **2008**

Axline scholar (full merit scholarship), Caltech — **2006-2010**

Lingle scholar (additional merit-based stipend offered to 1-2 incoming students), Caltech — **2006-2010**

Intel Science Talent Search: 10th place nationally — **2006**

Technical skills

Web development: Javascript (jQuery), CSS, HTML, Django, Ember.js, PostgreSQL, PHP, ActionScript

Stimuli creation, data analysis, modeling: Python (PyMC3), MATLAB (PsychToolbox), R, ffmpeg, OpenBUGS

Code: `https://github.com/kimberscott`

Research experience

Massachusetts Institute of Technology, Cambridge, MA

Graduate student **2011 - 2017**

Research on the structure and development of early conscious experience; development of an online system to allow parents to participate in developmental research from home: `https://lookit.mit.edu`

California Institute of Technology, Pasadena, CA

Research assistant, Lester lab **2010 - 2011**

Developed spike sorting software in MATLAB for use on long-term microelectrode recordings in behaving mice. Designed statistical methods to characterize quality of recordings from new 64-channel neural probes and sources of variation in signals.

Amgen scholar, Lester lab **Summer 2009**

Developed method to segregate pixels of fluorescence resonance energy transfer (FRET) images based on probable similarity of stoichiometric composition.

Richter scholar, Lester lab **Summer 2008**

Investigated the effect of nicotine on neuronal firing patterns in subthalamic nucleus by analyzing electrophysiological data from human Parkinsons patients undergoing implantation of stimulating electrodes.

Papers

*Sheskin, M., *Scott, K., Mills, C. M., Bergelson, E., Bonawitz, E., Spelke, E. S., ... Schulz, L. (2020). Online developmental science to foster innovation, access, and impact. Trends in Cognitive Sciences, 24(9), 675-678. `https://doi.org/10.1016/j.tics.2020.06.004`

Scott, K. M. and Kline, M. (2019). *Enabling confirmatory secondary data analysis by logging data 'checkout'.* Advances in Methods and Practices in Psychological Science. `doi:10.1177/2515245918815849` Preprint: `10.31234/osf.io/87wjc`

Chouinard, B., Scott, K., and Cusack, R. (2019). *Using automatic face analysis to score infant behaviour from video collected online.* Infant Behavior and Development 54: 1-12. `doi:10.1016/j.infbeh.2018.11.004`

Scott, K. M. (2019). *Split-brain babies? Differences in representation of bilaterally and unilaterally presented visual concepts in infancy.* Frontiers in Psychology 9(2018): 2758. `doi:10.3389/fpsyg.2018.02758`

Scott, K. M. and Schulz, L. E. (2017). *Lookit (part 1): a new online platform for developmental research.* Open Mind 1(1):4-14. `doi:10.1162/opmi_a_00002`

Scott, K. M., Chu, J., and Schulz, L. E. (2017). *Lookit (part 2): Assessing the viability of online developmental research, results from three case studies.* Open Mind 1(1):15-29. `doi:10.1162/opmi_a_00001`

Scott, K. M., Du, J., Lester, H. A., and Masmanidis, S. C. (2012). *Variability of extracellular action potential measurements with silicon neural probes.* J Neurosci Meth 211(1): 22-30. `doi:10.1016/j.jneumeth.2012.08.005`

Moss, F. J., Imoukhuede, P. I., Scott, K., Hu, J., Jankowsky, J. L., Quick, M. W., and Lester, H. A. (2009). *GABA transporter function, oligomerization state, and anchoring: correlates with subcellularly resolved FRET.* J Gen Physiol 134(6):489-521. `doi:10.1085/jgp.200910314`

Conference Presentations

Bochynska, A., Scott, K., and Dillon, M. (2021, April). *Bringing home Baby Euclid: Evaluating infants basic shape discrimination using the online platform Lookit.* In symposium: Infants learning about object properties and categories in diverse environments. Presentation at the Virtual Biennial Meeting of the Society for Research in Child Development.

Casey, K., Scott, K., Ashton, K., Gill, J., Simpson, E., and Bayet, L. (2021, April). *Neonatal imitation of caregivers at home: Pre-registered analyses.* Poster at the Virtual Biennial Meeting of the Society for Research in Child Development.

Cassamajor, K., Chu, J., Scott, K., and Schulz, L. (2021, April). *A large-scale study of infant intuitive physics.* Poster at the Virtual Biennial Meeting of the Society for Research in Child Development.

Scott, K.M. (2019, October). *Online developmental data collection.* In preconference workshop: Open developmental science. Presentation at the biennial meeting of the Cognitive Development Society, Louisville, KY.

Scott, K.M. & Schulz, L.E. (2015, March). *Moving the lab home: validation of a web-based system for developmental studies.* In symposium: Big data, little kids: Findings from novel large datasets in developmental psychology. Presentation at the biennial meeting of the Society for Research in Child Development, Philadelphia, PA.

Scott, K.M. & Schulz, L.E. (2014, July). *Interhemispheric integration of visual concepts in infancy.* Paper presented at the annual meeting of the Cognitive Science Society, Quebec City, Canada. `https://mindmodeling.org/cogsci2014/papers/245/paper245.pdf`

Scott, K.M., Spelke, E., and Schulz, L.E. (2014, April). *Interhemispheric Integration in Infancy: Split-Brain Babies?* Presentation at Towards a Science of Consciousness, Tuscon, AZ.

Teaching Experience

Massachusetts Institute of Technology, Cambridge, MA

Students supervised

Kamaria Kaalund, Wellesley (Fall 2019)

Rianna Shah, MIT (IAP, Spring, Fall 2015; IAP, Spring 2016; Spring 2018)

Alice Wang, Wellesley (Summer 2017)

Jessica Zhu, MIT (Fall 2016)

Audrey Ricks, MIT (Summer 2016)

Joseph Alvarez, Skidmore (Summer 2015)

Junyi Chu, Vanderbilt (Summer 2015)

Daniela Carrasco, MIT (Spring 2015)

Hope Fuller-Becker, Wellesley (Spring 2015, Spring 2016)

Rianna Shah, MIT (IAP, Spring, Fall 2015; IAP, Spring 2016)

Annie (DingRan) Dai, MIT (IAP, Spring 2015)

Jean Yu, Wellesley (IAP, Spring 2015)

Jean Chow, MIT (Fall 2014)

Scout Brisson, MIT (Fall 2014)

Jasmine Gums, Wellesley (Fall 2014)

Tracy Sorto, MIT (Spring 2014)

Shirin Shivaei, MIT (IAP, Spring 2014)

Katy Hanling, MIT (IAP, Spring, Summer, Fall 2014; Spring, Fall 2015; IAP, Spring 2016)

Vivienne Wang, Wellesley College (Spring, Summer, Fall 2013)

(Nia) Da Sul Jin, MIT (Fall 2013)

Chloe Joray, high school student at MIT's Research Science Institute (Summer 2013)

Alice Lu, MIT (IAP 2013, Spring 2013)

Jessica Wass, MIT (Fall 2012, Spring 2013)

Susie Lee, Wheaton College (Summer 2012)

Cindy Zhao, high school student at MIT's Research Science Institute (Summer 2012)

Teaching assistant 9.46: Neuroscience of Morality **Fall 2014**
Office hours and individual help with writing; taught classes on moral development and self-control.

Instructor 9.S93: Try this at home! **January 2014**
Created and taught a project-based class in which students created videos about research in cognitive development that demonstrated "at home labs" for parents to try with their kids.

Instructor 9.S93: Baby webcam **January 2013**
Created and taught a project-based class on a new system for running developmental experiments online. Each student adapted an existing experiment for replication using an online system for data collection in development.

Teaching assistant 9.85: Infant Cognition **Fall 2012, Fall 2013**
Grading, office hours; lectures on language acquisition.

California Institute of Technology, Pasadena, CA

Lead instructor LEAD program **Summer 2011**
Worked with four instructors to design and teach neuroscience curriculum for summer program for talented underrepresented high school students.

Teaching assistant YESS program **Summer 2010**
Graded daily homework, helped with elecrophysiology experiments, and led an independent project in machine learning for a neuroscience class as part of a summer science program for talented underrepresented high school students.

Teaching assistant Introduction to Computer Science **Fall 2007, 2008, 2009**
Held lab hours and graded problem sets for Caltech's introductory computer science course, emphasizing formal program evaluation. (Taught in LISP variant Scheme in 2007, Python in 2008 and 2009)

Academic service

Review of all studies posted on the Lookit platform prior to approval.

Ad-hoc reviewer for Behavior Research Methods, Cognitive Science Society, Collabra: Psychology, Infant Behavior and Development.