

ERIK BROCKBANK

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EDUCATION

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| University of California, San Diego Ph.D. <i>Psychology and Cognitive Science</i> (GPA: 3.93 / 4.0) | 2018–2023 (<i>expected</i>) |
| Marine Biological Laboratory Summer Course Brains, Minds, & Machines Program | 2020 (<i>accepted</i>) |
| Stanford University B.S., M.S. <i>Symbolic Systems</i> (GPA: 3.63 / 4.0) | 2014 |

ACADEMIC HONORS AND AWARDS

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| Cognitive Science Society Computational Prize (\$1,000) | June 2020 |
| UCSD Anderson Graduate Research Fellowship (\$1,500) | Sep. 2019 |
| UCSD Katzin Graduate Fellowship (\$50,000) | Sep. 2018 |
| K. Jon Barwise Award for distinguished contributions to Stanford Symbolic Systems | June 2014 |

LEADERSHIP EXPERIENCE

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| <i>UCSD Psychology Department</i> Graduate Statistics Advisor | Sep. 2019 - present |
| <i>UCSD Psychology Data Science Club</i> Club Leader | May 2019 - present |
| <i>UCSD Psychology Colloquium Series</i> Graduate Student Officer | May 2019 - present |
| <i>UCSD Psychology Student Speaker Series</i> Graduate Student Officer | May 2019 - present |
| <i>Stanford Symbolic Systems Student Society</i> Founder | 2013 |
| <i>Stanford Symbolic Systems Department</i> Undergraduate Advising Fellow | 2013, 2014 |

RESEARCH EXPERIENCE

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| UC San Diego Computational Cognition Lab <i>Ph.D. Student</i> · Bayesian computational modeling of numerical cognition, intuitive physics, and behavioral game theory (PI: Edward Vul) | Sep. 2018 - present |
| UC San Diego Early Learning & Cognition Lab <i>Ph.D. Student</i> · Research on hypothesis generation in learning tasks (PI: Caren Walker) | Sep. 2018 - present |
| Stanford Virtual Human Interaction Lab <i>Master's Student, Research Assistant</i> · Master's thesis on learning in virtual environments (Advisors: Jeremy Bailenson, Daniel Schwartz) · Research assistant and programmer | Sep. 2012 - June 2014 |
| Kidaptive <i>Research & Development Intern</i> · Efficacy study to inform educational product design (PI: Michael Frank, Stanford University) | June 2013 - Sep. 2013 |
| Stanford AAA Lab (School of Education) <i>Research Assistant</i> · Research assistant and programmer (PI: Daniel Schwartz) | Mar. 2011 - Sep. 2011 |

PUBLICATIONS AND PAPERS

Brockbank, E., Vul, E. & Barner, D. (in preparation). Mapping internal states to formal systems: modeling human numerosity estimation.

Brockbank, E., & Walker, C. (in preparation). Explanation Supports Hypothesis Generation in Learning.

Brockbank, E., & Vul, E. (in preparation). Human Adaptive Adversarial Reasoning.

Brockbank, E., & Vul, E. (2020). Recursive Adversarial Reasoning in the Rock, Paper, Scissors Game. In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

Brockbank, E., & Walker, C. (2020). Explanation Supports Hypothesis Generation in Learning. In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

Oey, L.A., Destefano, I., Brockbank, E., & Vul, E. (2020). Formalizing interdisciplinary collaboration in the CogSci community. In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

Brockbank, E., & Vul, E. (2019). Mapping visual features onto numbers. In A.K. Goel, C.M. Seifert, & C. Freksa (Eds.), *Proceedings of the 41st Annual Conference of the Cognitive Science Society* (pp. 1443–1449). Montreal, QB: Cognitive Science Society.

Brockbank, E., & Smith, K. & Vul, E. (2019). When do people use containment heuristics for physical predictions? In A.K. Goel, C.M. Seifert, & C. Freksa (Eds.), *Proceedings of the 41st Annual Conference of the Cognitive Science Society* (pp. 1450–1456). Montreal, QB: Cognitive Science Society. (Retraction November, 2019)

Brockbank, E. (2014). Embodied Problem Solving: Gesturing and Mathematics in Virtual Reality. Unpublished master's thesis.

CONFERENCE PRESENTATIONS

Brockbank, E., & Vul, E. (2020, July). Recursive Adversarial Reasoning in the Rock, Paper, Scissors Game. Talk at the 42nd Annual Conference of the Cognitive Science Society.

Brockbank, E., & Walker, C. (2020, July). Explanation Supports Hypothesis Generation in Learning. Talk at the 42nd Annual Conference of the Cognitive Science Society.

Oey, L.A., Destefano, I., Brockbank, E., & Vul, E. (2020, July). Formalizing interdisciplinary collaboration in the CogSci community. Talk at the 42nd Annual Conference of the Cognitive Science Society.

Brockbank, E., & Vul, E. (2020, July). Adaptive Reasoning in Rock-Paper-Scissors. Talk at the 53rd Annual Conference of the Society for Mathematical Psychology.

Brockbank, E., & Vul, E. (2019, July). Mapping visual features onto numbers. Poster presented at the 41st Annual Conference of the Cognitive Science Society. Montreal, Quebec, Canada.

Brockbank, E., Smith, K., & Vul, E. (2019, July). When do people use containment heuristics for physical predictions? Poster presented at the 41st Annual Conference of the Cognitive Science Society. Montreal, Quebec, Canada.

Brockbank, E., & Vul, E. (2019, June). Mapping visual features onto numbers. Poster presented at the 45th Annual Conference of the Society for Philosophy and Psychology. San Diego, California, USA.

TEACHING EXPERIENCE

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| Teaching Assistant | Psychology of Parenting | <i>Mar. - June 2020</i> |
| Teaching Assistant | Introduction to Psychology | <i>Sep. - Dec. 2019</i> |
| Teaching Assistant | Industrial & Organizational Psychology | <i>Jul. - Aug. 2019</i> |
| Teaching Assistant | Developmental Psychology | <i>Jan. - Mar. 2019</i> |
| Teaching Assistant | Media Economics (Comm. dept.) | <i>Mar. - June 2014</i> |
| Teaching Assistant | Introduction to Cognitive Science | <i>Jan. - Mar. 2014</i> |
| Teaching Assistant | Introduction to Cognitive Psychology | <i>Sep. - Dec. 2012</i> |

TECHNICAL SKILLS

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| Languages | Python; Golang; experience with Java, C++, C |
| Analytics | R; Python (matplotlib); Matlab; Excel |
| Web | HTML; CSS; Javascript (jQuery, Flask, node.js, D3.js) |
| Databases | MySQL; HiveQL |
| Tools | github, Anaconda/Jupyter |
| Other | Spanish (fluent) |