# Kevin G. O'Neill

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kevin.oneill@duke.edu
(267) 377-9085

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**Education**

**Duke University** Fall 2018 - Present
*PhD,* Cognitive Neuroscience
Imagination and Modal Cognition Laboratory — Dr. Felipe De Brigard
Pearson Laboratory — Dr. John Pearson

**Rensselaer Polytechnic Institute** Class of 2017
*Bachelor of Science,* Cognitive Science and Computer Science GPA: 3.97

**Experience**

**Computer Scientist** Summer 2017 - Present
ARCADIA Project — Paul Bello
U.S. Naval Research Laboratory

**Undergraduate Researcher** Spring 2015 - Spring 2017
Rensselaer Artificial Intelligence and Reasoning
(RAIR) Laboratory — Dr. Selmer Bringsjord

**Federal Work Study** Fall 2014 - Spring 2017
Rensselaer Cognitive Science Department

**Journal Papers**

**O'Neill, K.**, & De Brigard, F. (2019). Two challenges for a dual system approach to temporal cognition. *Commentary in Brain and Behavioral Sciences.*

Govindarajulu, N. S., Bringsjord, S., Sen, A., Paquin, J. C., & **O'Neill, K.** (2018). Ethical operating systems. *Reflections on Programming Systems.*

Bringsjord, S., & **O'Neill, K.** (In Press). Third-millenium computational logic. *Minds and Machines.*

**Conference Papers**

Yin, S., **O'Neill, K.**, Brady, T., & De Brigard, F. (2019). The effect for category learning on recognition memory: A signal detection theory analysis. In *Proceedings of the 41st Annual Meeting of the Cognitive Science Society.*

Bello, P., **O'Neill, K**., & Bridewell, W. (2019). Artificial agency requires attention: The case of intentional action. In *AAAI Spring Symposium: Towards Conscious AI Systems.*

**O'Neill, K.**, Bridewell, W., & Bello, P. (2018). Time-based resource sharing in arcadia. In *Proceedings of the 40th Annual Meeting of the Cognitive Science Society.*

Bello, P., Lovett, A., Briggs, G., & **O'Neill, K.** (2018). An attention-driven model of human causal reasoning. In *Proceedings of the 40th Annual Meeting of the Cognitive Science Society.*

**Presentations**

Smith, A., **O'Neill, K.**, Smilek, D., Seli, P. (2019) "On the utility of the Dynamic Framework of mind wandering". *Psychonomics.*

Yin, S., **O'Neill, K.**, Brady, T., De Brigard, F. (2019) "The Effect for Category Learning on Recognition Memory: A Signal Detection Theory Analysis". *41st Annual Meeting of the Cognitive Science Society.*

Bello, P., **O'Neill, K.**, Bridewell, W. (2019). "Artificial Agency Requires Attention: The Case of Intentional Action". In *AAAI Spring Symposium: Towards Conscious AI Systems.*

Lovett, A., Briggs, G., **O'Neill, K.**, Bello, P. (2018). "Strategic Deployment of Attention in Online Causal Judgment: A Computational Model". *Journal of Vision*, 18(10), 741-741.

**O'Neill, K.**, Bridewell, W., Bello, P. (2018) "Time-Based Resource Sharing in ARCADIA". *40th Annual Meeting of the Cognitive Science Society.*

Bello, P., Lovett, A., Briggs, G., **O'Neill, K.** (2018) "An Attention-Driven Model of Human Causal Reasoning". *40th Annual Meeting of the Cognitive Science Society.*

**O'Neill, K.**, Bringsjord, S. "Solving the Lottery Paradox in a Cognitive Calculus". (2016) *International Association for Computing and Philosophy.*

**Projects**

**SpikingNeuralNets.jl**
A flexible system for simulating arbitrary systems of spiking neural networks.

**ARCADIA**
A computational framework for attention-centered cognitive modeling.

**MetaProver**
A framework for automated logical and meta-logical reasoning via analytic tableaux

**OSCAR**
A restoration of John Pollock's nonmonotonic natural deduction theorem prover

**Awards/ Honors**

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| NSF GRFP Honorable Mention | Spring 2019 |
| Chancellors Scholars Fellowship | Fall 2018 |
| Rensselaer Leadership Award | Fall 2014 - Spring 2017 |
| Mona & Edward Zander '68 Scholarship | Fall 2014 - Spring 2017 |
| Dean's List/Dean's Honor List | Fall 2014 - Spring 2017 |

**Skills**

- Python, R, C/C++, Java, Clojure/Lisp, Julia, Javascript, Prolog, Unix, Git
- Software development, verification, and visualization
- Mixed-effect modeling and Bayesian statistics
- Artificial Intelligence (Cognitive Modeling, ML, Symbolic AI, NLP)
- Parallel/High-Performance Computing