

WAI KEEN VONG

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POSITIONS

Dec 2016 – present Rutgers University – Newark
Postdoctoral Researcher – Cognitive and Data Science Lab
Supervisor: Dr. Patrick Shafto

EDUCATION

- 2013 – 2018 University of Adelaide
Ph.D. in Psychology
Thesis: From simple to complex categories: How structure and label information guides the acquisition of category knowledge
Supervisors: Dr. Amy Perfors, Dr. Danielle Navarro and Dr. Andrew T. Hendrickson
- 2008 – 2012 University of Adelaide
Bachelor of Psychology (First Class Honours)
GPA: 6.5/7.0
Thesis: Category learning in a dynamic environment
Supervisors: Dr. Danielle Navarro and Dr. Amy Perfors
- 2009 – 2011 University of Adelaide
Bachelor of Mathematical and Computer Sciences
GPA: 6.4/7.0
Majors: Pure Mathematics and Computer Science

OTHER EDUCATION

- Jul 2016 *Summer School in Probabilistic Programming and Machine Learning*, Portland, USA
Feb 2016 *Bayesian Estimation of Evidence Accumulation Models Workshop*, Tasmania, Australia
Aug 2013 *Bayesian Modeling for Cognitive Science Workshop*, University of Amsterdam, Netherlands

HONOURS AND AWARDS

- 2016 *Marr Prize for Best Student Paper*, Cognitive Science Society
2016 *Robert J. Glushko and Pamela Samuelson Foundation Student Travel Grant*, Cognitive Science Society
2014/2016 *Higher Degree Research Assistance Scheme*, School of Psychology, University of Adelaide
2013 – 2016 *Australian Postgraduate Award*, University of Adelaide
2010 *Dean's Certificate of Merit*, University of Adelaide
2009/2010 *Summer Research Scholarship*, University of Adelaide

INVITED TALKS

- Dec 2017 *Seminar on Concepts and Categories (ConCats)*, New York University.
Aug 2016 *Computation and Language Lab*, University of Rochester.
Aug 2016 *Computational Cognitive Neuroscience Lab*, Harvard University.
Aug 2016 *Seminar on Concepts and Categories (ConCats)*, New York University.
Aug 2016 *Cognitive and Data Science Lab*, Rutgers University – Newark.

TEACHING

- 2018 Guest lecturer (Reinforcement Learning) – Statistics and Machine Learning. *Department of Mathematics and Computer Science, Rutgers University – Newark*
2016 Teaching Assistant – Doing Research in Psychology. *School of Psychology, University of Adelaide*
2014 Teaching Assistant – Computational Cognitive Science. *School of Computer Science, University of Adelaide*

RESEARCH EXPERIENCE

- 2013 – 2014 Research Assistant (with Dr. John Dunn). *School of Psychology, University of Adelaide*
2011 – 2012 Research Assistant. *The Australian Centre for Visual Technologies, University of Adelaide*
2009 – 2012 Research Assistant (with Dr. Amy Perfors and Dr. Danielle Navarro). *Computational Cognitive Science Lab, University of Adelaide*

PUBLICATIONS

1. Yang, S.C-H., Vong, W.K., Yu, Y., & Shafto, P. (in prep). A unifying computational framework for teaching and active learning.
2. Vong, W. K., Hendrickson, A. T., Perfors, A. F. & Navarro, D. J. (submitted). Do additional features help or harm during category learning? The curse of dimensionality in human learners.
3. Vong, W. K.*, Sojitra, R.*, Reyes, A., Yang, S. C-H & Shafto, P. (2018). Bayesian teaching of image categories. *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. (* indicates co-first author)
4. Yang, S.C-H., Yu, Y., Givchi, A., Wang, P., Vong, W.K., & Shafto, P. (2018). Optimal Cooperative Inference. *Proceedings of the 21st International Conference on Artificial Intelligence and Statistics (AISTATS)*.
5. Vong, W. K., Hendrickson, A. T., Perfors, A. F. & Navarro, D. J. (2016). Do additional features help or harm during category learning? An exploration of the curse of dimensionality in human learners. *Proceedings of the 38th Annual Conference of the Cognitive Science Society* **Marr Prize for Best Student Paper**.
6. Vong, W. K., Navarro, D.J. & Perfors, A. F. (2016). The helpfulness of category labels in semi-supervised learning depends on category structure, *Psychonomic Bulletin & Review*, 23, 230-238.
7. Vong, W. K., Perfors, A. F. & Navarro, D. J. (2014). The relevance of labels in semi-supervised learning depends on category structure. *Proceedings of the 36th Annual Conference of the Cognitive Science Society*
8. Navarro, D. J., Perfors, A. F. & Vong, W. K. (2013). Learning time-varying categories. *Memory & Cognition*, 41, 917-927.
9. Vong, W. K., Hendrickson, A. T., Perfors, A. F. & Navarro, D. J. (2013). The role of sampling assumptions in generalization with multiple categories. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*

CONFERENCE PRESENTATIONS

1. Vong, W. K.*, Sojitra, R.*, Reyes, A., Yang, S. C-H & Shafto, P. (2018). Bayesian teaching of image categories.
 - To be presented as a poster at the *40th Annual Conference of the Cognitive Science Society* in Madison, USA.
2. Sojitra, R., Vong, W.K. & Shafto, P. (2017). The dynamics of visual experiences.
 - Presented as a poster at the *Cognitive Computational Neuroscience Conference* in New York City, USA.
3. Vong, W. K., Hendrickson, A. T., Perfors, A. F. & Navarro, D. J. (2016). Do additional features help or harm during category learning? An exploration of the curse of dimensionality in human learners.
 - Presented as a talk at the *38th Annual Conference of the Cognitive Science Society* in Philadelphia, USA.
4. Vong, W. K., Hendrickson, A. T., Perfors, A. F. & Navarro, D. J. (2016). Learning conceptual structure: How category labels affect learning and generalization in hierarchical and cross-cutting categories
 - Presented as a talk at the *Experimental Psychology Conference* in Melbourne, Australia.
5. Vong, W. K., Hendrickson, A. T., Perfors, A. F. & Navarro, D. J. (2016). Overcoming the curse of dimensionality: How category structure affects the learning of complex categories.
 - Presented as a talk at the *Australian Mathematical Psychology Conference* in Hobart, Australia.
6. Vong, W. K., Hendrickson, A. T., Perfors, A. F. & Navarro, D. J. (2015). When more doesn't help: Learning categories with many features.
 - Presented as a talk at the *Experimental Psychology Conference* in Sydney, Australia.
7. Vong, W. K., Perfors, A. F. & Navarro, D. J. (2014). The relevance of labels in semi-supervised learning depends on category structure.
 - Presented as a talk at the *36th Annual Conference of the Cognitive Science Society* in Quebec City, Canada.
 - Presented as a talk at the *Experimental Psychology Conference* in Brisbane, Australia.
 - Presented as a talk at the *Australian Mathematical Psychology Conference* in Canberra, Australia.
8. Vong, W. K., Hendrickson, A. T., Perfors, A. F. & Navarro, D. J. (2013). The role of sampling assumptions in generalization with multiple categories.
 - Presented as a poster at the *35th Annual Conference of the Cognitive Science Society* in Berlin, Germany.
 - Presented as a talk at the *Experimental Psychology Conference* in Adelaide, Australia.
 - Presented as a talk at the *Australian Mathematical Psychology Conference* in Sydney, Australia.

SKILLS

Programming R, Python, Javascript, HTML/CSS
Software L^AT_EX, Emacs, git, Bash

PROFESSIONAL ASSOCIATIONS

Member of the Cognitive Science Society
Ad-hoc reviewer for: Cognitive Science Conference, American Journal of Psychology