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APPOINTMENTS	<p>Professor, Department of Computer Science 2015–2017</p> <p>Cyril G. Veinott Green and Gold Professor, Department of Computer Science, College of Engineering & Mathematical Sciences, University of Vermont 2015–</p> <p>Director, Vermont Advanced Computing Core 2015–</p> <p>Consultant, Xemo Corporation (spinoff company from our laboratory) 2014–</p> <p>Associate Professor, Department of Computer Science 2012–2015 College of Engineering & Mathematical Sciences, University of Vermont</p> <p><i>Secondary appointment in the School of Engineering, UVM</i> 2014–</p> <p><i>Secondary appointment in the Neuroscience Graduate Program, UVM</i> 2013–</p> <p>Vice chair, Vermont Complex Systems Center 2011–2015</p> <p>Assistant Professor, Department of Computer Science 2006-2012 College of Engineering & Mathematical Sciences, University of Vermont</p> <p>Director, Morphology, Evolution & Cognition Laboratory 2006–</p> <p>Postdoctoral Associate, Cornell University 2003–2006 Advisor: Hod Lipson, Director of the Creative Machines Laboratory</p> <p>Software Engineer, Computing Devices Canada 1998</p>
EDUCATION	<p>Ph.D., Department of Informatics, University of Zurich, Switzerland 1999-2003 Dissertation: <i>Incremental Approaches to the Combined Evolution of a Robot’s Body and Brain.</i> Advisor: Rolf Pfeifer, Director of the Zurich Artificial Intelligence Laboratory</p> <p>M.S., Evolutionary & Adaptive Systems, University of Sussex, UK 1998-1999 Dissertation: <i>Evolving Heterogeneity: Implications for Agent-Based Systems and Collective Problem Solving.</i> Advisor: Inman Harvey</p> <p>B.Sc., Honors Computer Science, McMaster University, Canada 1993-1997 Graduated <i>Summa Cum Laude</i></p> <p>Study abroad program, Corpus Christi College, Oxford University, UK 1994</p>
CURRENT FUNDING	<p>National Science Foundation EAGER award, \$100,000 2016-2017 <i>Scalable crowdsourced reinforcement of robot behavior.</i></p>

	Army Research Office, \$400,000 <i>Morphological Plasticity for the Design, Control, and Deployment of Complex Engineering Systems.</i>	2016-2018
	NASA ROSES award (co-PI; PI: Kamalika Das), \$300,000 <i>Uncovering effects of climate variables on global vegetation.</i>	2015-2017
	NSF BIGDATA award (co-PI; PI: James Bagrow, UVM), \$600,000 <i>Hunch & Crunch: Iterative Crowdsourced Hypothesis Generation.</i>	2014-2017
	NSF INSPIRE award (co-PI; PI: Ken Livingston, Vassar College), \$500,000 <i>Evolvability and the emergence of modularity.</i>	2013-2017
	NSF CAREER/PECASE award, \$499,999 <i>Ultimate Mechanisms of Embodied Cognition.</i>	2010-2016
PAST FUNDING	DARPA MSEE award, \$614,830 <i>Continually Plastic Modeling of Non-Stationary Systems.</i>	2011-2015
	DARPA M3 award (co-PI: PI: Greg Hornby, NASA Ames), \$200,000 <i>Rapid Human-Computer Interactive Conceptual Design of Mobile and Manipulative Robot Systems.</i>	2011-2014
	Microsoft Research New Faculty Fellowship , \$200,000	2007—
	NSF SGER award, \$192,391 <i>Exploiting ‘Like Me’ Hypotheses for Learning Robots</i>	2007–2009

BOOKS

1. Pfeifer, R. and J. Bongard (2006)
How the Body Shapes the Way We Think: A New View of Intelligence, Boston, MA: MIT Press. (Translated into Chinese, Japanese, Arabic and an E-book)

ARTICLES

27. D Buckingham & JC Bongard (2017)
[Physical Scaffolding Accelerates the Evolution of Robot Behavior.](#)
Artificial Life, 23(3):351-373.
26. F Corucci, N Cheney, S Kriegman, J Bongard, C Laschi (2017)
[Evolutionary developmental soft robotics as a framework to study intelligence and adaptive behavior in animals and plants.](#)
Frontiers in Robotics and AI.
25. N Livingston, A Bernatskiy, K Livingston, ML Smith, J Schwarz, JC Bongard, D Wallach & JH Long Jr (2016)
[Modularity and sparsity: evolution of neural net controllers in physically embodied robots.](#)
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24. T Taylor, JE Auerbach, J Bongard, J Clune, S Hickenbotham, C Ofria, M Oka, S Risi, KO Stanley, J Yosinski (2016)
[WebAL comes of age: A review of the first 21 years of artificial life on the web.](#)
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23. C Cappelle, A Bernatskiy, K Livingston, N Livingston, J Bongard (2016)
Morphological modularity can enable the evolution of robot behavior to scale linearly.

Frontiers in Robotics and AI, in press.

22. J Bongard (2015)
[Using robots to investigate the evolution of adaptive behavior.](#)
Current Opinion in Behavioral Sciences, 6: 168–173.
21. M Wagdy & J Bongard (2015)
[Combining computational and social effort for collaborative problem solving.](#)
PLoS ONE, DOI: 10.1371/journal.pone.014524.
20. D Buckingham, C Skalka, and J Bongard (2015)
Inductive machine learning for improved estimation of catchment-scale snow water equivalent.
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Participation and contribution in crowdsourced surveys.
PLoS ONE, DOI: 10.1371/journal.pone.0120521.
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Evolved machines shed light on robustness and resilience.
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17. Lu, Z. Wu, X. & Bongard, J. C. (2014)
Active learning through adaptive heterogeneous ensembling.
IEEE Transactions on Knowledge and Data Engineering, DOI: 10.1109/TKDE.2014.2304474.
16. Bevelander, K. E., Kaipainen, K., Swain, R., Dohle, S., Bongard, J. C., Hines, P. D. H. & Wansink, B. (2014)
Crowdsourcing novel childhood predictors of adult obesity.
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15. Auerbach, J. E. & Bongard, J. C. (2014)
Environmental influence on the evolution of morphological complexity in machines.
PLoS Computational Biology, 10(1): e1003399
14. Bongard, J. C. (2013)
Evolutionary robotics.
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13. Bongard, J. C., Hines, P. D. H., Conger, D., Hurd, P., and Lu, Z. (2012)
Crowdsourcing predictors of behavioral outcomes.
IEEE Transactions on Systems, Man, and Cybernetics, Part A, 43(1): 176–185.
12. Bongard, J. C. (2011)
Morphological change in machines accelerates the evolution of robust behavior.
Proceedings of the National Academy of Sciences, 108(4): 1234-1239.
11. Bongard, J. C. (2011).
Innocent until proven guilty: Reducing robot shaping from polynomial to linear time.
IEEE Transactions on Evolutionary Computation, 15(4): 571–85.
10. Kaipa, K., Bongard, J., Meltzoff, A. (2010).
Self discovery enables robot social cognition: Are you my teacher?
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9. Bongard, J. C. (2010).
The utility of evolving simulated robot morphology increases with task complexity for object manipulation. *Artificial Life*, 16(3): 201-223.
8. Rughani, A. I., Dumont, T. M., Lu, Z., Bongard, J., Horgan, M. A., Penar, P. L., Tranmer, B. I. (2009).
Use of an artificial neural network to predict head injury outcome. *Journal of Neurosurgery*, 113(3): 585–90.
7. Bongard J. C. (2009).
Accelerating self-modeling in cooperative robot teams. *IEEE Transactions on Evolutionary Computation*, 13(2): 321-332.
6. Bongard, J. and H. Lipson (2007)
Automated reverse engineering of nonlinear dynamical systems. *Proceedings of the National Academy of Sciences*, 104(24): 9943-9948.
5. Bongard, J., V. Zykov and H. Lipson (2006)
Resilient machines through continuous self-modeling. *Science*, 314: 1118-1121.
4. Kouchmeshky, B., W. Aquino, H. Lipson and J. Bongard (2006)
Co-evolutionary strategy for structural damage identification using minimal physical testing. *International Journal for Numerical Methods in Engineering*, 69(5): 1085-1107.
3. Bongard, J. and H. Lipson (2005)
Active coevolutionary learning of deterministic finite automata. *Journal of Machine Learning Research*, 6(Oct): 1651-1678.
2. Bongard, J. and H. Lipson (2005)
Nonlinear system identification using coevolution of models and tests. *IEEE Transactions on Evolutionary Computation*, 9(4): 361-384.
1. Pfeifer, R., F. Iida and J. Bongard (2005)
New robotics: design principles for intelligent systems. *Artificial Life Special Issue on New Robotics, Evolution and Embodied Cognition*, 11(1-2): 99-120.

BOOK CHAPTERS

7. A Cangelosi, J Bongard, MH Fischer, S Nolfi (2015)
[Embodied intelligence](#).
Springer Handbook of Computational Intelligence, pp. 697-714
6. Bongard, J. C. (2014)
Evolving morphological computation.
Opinions and Outlooks on Morphological Computation, ISBN: 978-3-033-04515-6
5. Bongard, J. C. (2014)
Why morphology matters.
Horizons of of Evolutionary Robotics, MIT Press, pp. 125–152.
4. Icke, I., Allgaier, N. A., Danforth, C. M., Whelan, R., Garavan, H., Bongard, J. C. (2013)
A Deterministic and Symbolic Regression Hybrid Applied to Resting-State fMRI data.
Genetic Programming Theory and Practice IX, Springer.
3. Bongard, J. C. (2011)

The ‘What’, ‘How’ and the ‘Why’ of Evolutionary Robotics.
In Doncieux, S., Bredeche, N., Mouret, J.-B. (eds.),
New Horizons in Evolutionary Robotics (Studies in Computational Intelligence), 341: 29-35.

2. Bongard, J. C. (2011)
A Functional Crossover Operator for Genetic Programming.
Genetic Programming Theory and Practice VII, Springer, pp. 195—210
1. Bongard, J. and R. Pfeifer (2003)
Evolving complete agents using artificial ontogeny,
Morpho-functional Machines: The New Species, Springer-Verlag, pp. 237—258.

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CONFERENCE PUBLICATIONS

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[Choice of robot morphology can prohibit modular control and disrupt evolution.](#)
Procs of the European Conference on Artificial Life, Nancy, France.
68. S Kriegman, N Cheney, F Corucci, JC Bongard (2017).
[A minimal developmental model can increase evolvability in soft robots.](#)
Proceedings of the Genetic and Evolutionary Computation Conference, pp 131-138.
67. C Cappelle, A Bernatskiy, J Bongard (2017).
[Reducing Training Environments in Evolutionary Robotics Through Ecological Modularity.](#)
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66. M Szubert, A Kodali, S Ganguly, K Das & JC Bongard (2016)
[Semantic forward propagation for symbolic regression.](#)
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65. S Kriegman, M Szubert, JC Bongard & C Skalka (2016)
[Evolving spatially aggregated features from satellite imagery for regional modeling.](#)
Procs of the Parallel Problem Solving from Nature (PPSN) Conference, Edinburgh, UK.
64. N Powell & JC Bongard (2016)
[Exploring uncertainty and movement in categorical perception using robots.](#)
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63. M Szubert, A Kodali, S Ganguly, K Das & JC Bongard (2016)
[Reducing antagonism between behavioral diversity and fitness in semantic genetic programming.](#)
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62. N Cheney, JC Bongard, V SunSpiral & H Lipson (2016)
[On the difficulty of co-optimizing morphology and control in evolved virtual creatures.](#)
15th Intl Conference on the Simulation and Synthesis of Living Systems (ALife 2016), Cancun, MX.
61. F Corucci, N Cheney, H Lipson, C Laschi & JC Bongard (2016)
[Material properties affect evolution’s ability to exploit morphological computation in growing soft-bodied creatures.](#)
15th Intl Conference on the Simulation and Synthesis of Living Systems (ALife 2016), Cancun, MX.
60. J Anetsberger & JC Bongard (2016)
[Robots can ground crowd-proposed symbols by forming theories of group mind.](#)
15th Intl Conference on the Simulation and Synthesis of Living Systems (ALife 2016), Cancun, MX.

59. M Wagý & JC Bongard (2016)
[Social contribution in the design of adaptive machines on the web.](#)
15th Intl Conference on the Simulation and Synthesis of Living Systems (ALife 2016), Cancun, MX.
58. McAndrew, T. C., Bongard, J. C., Danforth, C. M., Dodds, P. S., Hines, P. D., & Bagrow, J. P. (2016).
 What we write about when we write about causality: Features of causal statements across large-scale social discourse.
 ASONAM 16
57. M Wagý & JC Bongard (2015)
[Crowdseeding: a novel approach for designing bioinspired machines.](#)
Fourth Intl Conf on Biomimetics and Biohybrid Systems (Living Machines 2015), Barcelona, Spain.
56. K Zieba & JC Bongard (2015)
[An embodied approach for evolving robust visual classifiers.](#)
Procs of the Genetic and Evolutionary Computation Conference, Madrid, Spain.
55. A Yousefi, JC Bongard & C Skalka (2015)
[A Genetic Programming approach to cost-sensitive control in resource constrained sensor systems.](#)
Procs of the Genetic and Evolutionary Computation Conference, Madrid, Spain.
54. N Cheney, JC Bongard & H Lipson (2015)
[Evolving soft robots in tight spaces.](#)
Procs of the Genetic and Evolutionary Computation Conference, Madrid, Spain.
53. JC Bongard, A Bernatskiy, K Livingston, N Livingston, J Long & M Smith (2015)
[Evolving robot morphology facilitates the evolution of neural modularity and evolvability.](#)
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52. Wagý, M., Bongard, J. C. (2014)
 Collective Design of Robot Locomotion.
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 Acceptance rate: 49.8%. Citations: 4
51. Bernatskiy, A., Hornby, G., Bongard, J. C. (2014)
 Improving Robot Behavior Optimization by Combining User Preferences.
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50. Icke, I., Bongard, J. C. (2013)
 Improving Genetic Programming Based Symbolic Regression Using Deterministic Machine Learning.
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49. Icke, I., Bongard, J. C. (2013)
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48. Celis, S., Hornby, G. S., Bongard, J. C. (2013)
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46. Auerbach, J. E., Bongard, J. C. (2012)
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45. Auerbach, J. E., Bongard, J. C. (2012)
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44. Hornby, G. S., Bongard, J. C. (2012)
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43. Hornby, G. S., Bongard, J. C. (2012)
Learning Comparative User Models for Accelerating Human Computer Collaborative Search.
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42. Auerbach, J. E., Bongard, J. C. (2011)
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41. Bongard, J. C. (2011)
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39. Auerbach, J. E., Bongard, J. C. (2010)
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38. Lu, Z., Wu, X., Zhu, X., Bongard, J. (2010)
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37. Auerbach, J. E., Bongard, J. C. (2010)
Evolving CPPNs to Grow Three Dimensional Structures.
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A Probabilistic Functional Crossover Operator for Genetic Programming.
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34. Lu, Z., Wu, X., Bongard, J. (2010)
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33. Lu, Z., Wu, X., Bongard, J. C. (2009)
Active Learning with Adaptive Heterogeneous Ensembles.
Procs of the Intl Conf on Data Mining, Miami, FL.
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32. Kaipa, K., Bongard, J. C., Meltzoff A. N. (2009)
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31. Auerbach, J., Bongard, J. C. (2009)
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30. Auerbach, J., Bongard, J. C. (2009)
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29. Bongard, J. (2008)
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28. Bongard, J. (2007)
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25. Lipson, H., J. Bongard, V. Zykov and E. Malone (2006)
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22. Bongard, J. and H. Lipson (2005)
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Co-evolutionary Variance Can Guide Physical Testing in Evolutionary System Identification,
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18. Lipson, H. and J. Bongard (2004)
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of Engineering Systems Using Minimal Physical Testing,
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17. Zykov, V., J. Bongard and H. Lipson (2004)
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16. Bongard, J. and H. Lipson (2004)
Once More Unto the Breach: Co-evolving a Robot and its Simulator,

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15. Bongard, J. and H. Lipson (2004)
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 12. Bongard, J. (2002)
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 11. Frutiger, D. R., Bongard, J. and F. Iida (2002)
Iterative Product Engineering: Evolutionary Robot Design,
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A Method for Isolating Morphological Effects on Evolved Behaviour,
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 7. Paul, C. and J. Bongard (2001)
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 6. Bongard, J. and C. Paul (2001)
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5. Bongard, J. and R. Pfeifer (2001)
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4. Bongard, J. and C. Paul (2000)
Investigating Morphological Symmetry and Locomotive Efficiency using Virtual Embodied Evolution,
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3. Bongard, J. (2000)
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2. Bongard, J. (2000)
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1. Bongard, J. (1999)
Coevolutionary Dynamics of a Multi-Population Genetic Programming System,
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[Evolving soft robots](#). *Soft Robotics* 3(2): 43-44. Editorial.
18. A Larson, A Bernatskiy, C Cappelle, K Livingston, N Livingston,
J Long, J Schwarz, M Smith & JC Bongard (2016)
[Recombination hotspots promote the evolvability of modular systems](#).
Procs of the Genetic and Evolutionary Computation Conference (GECCO 2016). Poster.
17. Bongard, J. C. (2016)
[I, For One](#).
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16. Bongard, J. C. (2015)
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Invited Response to the 2015 Edge Question:
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15. JP Bagrow, S Desu, MR Frank, N Manukyan, L Mitchell, A Reagan, EE Bloedorn, LB Booker,
LK Branting, MJ Smith, BF Tivnan, CM Danforth, PS Dodds, JC Bongard (2013).
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arXiv preprint arXiv: 1312.6122
14. Hornby, G. S. & Bongard, J. C. (2013).
Accelerating Interactive Evolutionary Algorithms through User Modeling.
International Conference on Intelligent User Interfaces.

13. Celis, S., Bongard, J. C. (2012)
Not All Physics Simulators Can Be Wrong in the Same Way.
Genetic and Evolutionary Computation Conference, pp. 659-660.
12. Beliveau, P., Hornby, G. S., Bongard, J. C. (2012)
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10. Bongard, J. C. (2011)
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9. Bongard, J. (2011).
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8. Bongard, J. (2009).
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7. Lu, Z., Bongard, J. C. (2009)
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6. Bongard, J. C. (2009)
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Genetic and Evolutionary Computation Conference (GECCO 2009), Montreal Canada.
5. Bongard, J. (2008).
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3. Lungarella, M., Iida, F., Bongard, J. and Pfeifer, R. (2008)
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Proceedings of the 50th Anniversary Summit of Artificial Intelligence, pp. 1-8.
2. Lu, Z., Rughani, A. I., Tranmer, B. I., Bongard, J. (2008)
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Fourth Workshop on Medical Applications of Genetic and Evolutionary Computation at GECCO 2008.
1. Conduit, R., Adami, C., Lipson, H., Zykov, V. and Bongard, J. (2007).
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Science, 315: 1219-1220.

EDITORSHIPS	Associate Editor, <i>Frontiers in Robotics and AI</i>	2014–
	Review Editorial Board, <i>Evolutionary Robotics</i>	2014–
	Associate Editor, <i>Soft Robotics</i>	2013–
	Action Editor, <i>Neural Computation</i>	2011–
	Academic Editor, <i>Public Library of Science (PLoS) ONE</i>	2011–
	Guest Associate Editor, <i>PLoS Computational Biology</i>	2013–
TREASURER	International Society for Artificial Life	2014–
MEMBERSHIP	University of Vermont STEM Leadership Council	2014–
	<i>13th Intl Conf on the Simulation of Adaptive Behavior</i> , program committee	2014
	<i>13th Intl Conf on Parallel Problem Solving from Nature</i> , program committee	2014
	<i>Genetic and Evolutionary Computation Conference</i> , program committee	annually
	<i>Living Machines Conference</i> , program committee	annually
	<i>Artificial Life Conference</i> , program committee	biennially
	<i>European Conference on Artificial Life Conference</i> , program committee	biennially
	<i>Living Machines Conference</i> , program committee	annually
	<i>Genetic and Evolutionary Computation Conference</i> , track chair	2013
	<i>Congress on Evolutionary Computation (CEC)</i> , program committee	2013
	National affiliate, University of Iowa <i>DeLTa</i> center	2013–
	<i>Federation of American Scientists (FAS)</i> board of sponsors	2011–
<i>Institute of Electrical and Electronics Engineers (IEEE)</i>	2007–	
<i>Association for Computing Machinery (ACM)</i>	2006–	
REVIEWER	<i>Science</i>	
	<i>Nature</i>	
	<i>Proceedings of the National Academy of Science (PNAS)</i>	
	<i>Nature Communications</i>	
	<i>PLoS ONE</i>	
	<i>PLoS Computational Biology</i>	
	<i>Neural Computation</i>	
	<i>Journal of Machine Learning Research (JMLR)</i>	
	<i>IEEE Transactions on Evolutionary Computation</i>	
	<i>IEEE Transactions on Robotics</i>	
	<i>Artificial Life</i>	
<i>Adaptive Behavior</i>		
<i>IEEE Transactions on Systems, Man and Cybernetics</i>		
<i>Journal of Neurorobotics</i>		
PANELIST	The EC Flagship Initiative ‘Human Brain Project’ proposal reviewing	2013
	National Institutes of Health (NIH) proposal reviewing	2010
	National Science Foundation (NSF) proposal reviewing (about once/year)	2006–
INTERNAL	Director of the Vermont Advanced Computing Core (UVM’s supercomputer)	2015–
	Vice Chair, Vermont Complex Systems Center	2011–2015
	UVM STEM Leadership Council Member	2013–
OUTREACH	~10 presentations to K-12 students per year. Representative sample below.	
	Presentation to ~30 Abenaki Nation high school students	August, 2016
	Governor’s Institute of Vermont presentations (~100 students)	2012–2017
	Burlington High School presentation on robotics.	2014–2017
	Waldorf School (grades 7 through 12), Toronto	Feb, 2016
	Steelesview Public School , Toronto (grades 2 and 3)	Feb, 2016

	Governor's Institute of Vermont summer program guest instructor	2007–2013
	Boy Scouts of America guest instructor	Dec, 2013
	Reddit AMA (“Ask Me Anything”)	Aug, 2013
	Hour of Code visitor, Browns River Middle School	2013, 2014
TEACHING	<i>Evolutionary Robotics</i>	2010–
	<i>Human Computer Interaction</i>	2007–present
	<i>Software Engineering</i>	2006/07/08
	<i>Embodied Cognition</i>	2009
ADVISING	<hr/>	
POSTDOCS	Zahra Mahoor	2017–
	Marcin Szubert	2015–2017
	Ilknur Icke	2012–2013
	Kaipa Krishnanand	2008–2010
PHD'S	Mikaela Cruz (Electrical Engineering)	2017–
	Joshua Powers (Computer Science)	2017–
	Sam Kriegman (Computer Science)	2016–
	Collin Cappelle (Computer Science)	2015–
	Anton Bernatskiy (Computer Science)	2013–
	Roman Popov (Computer Science)	2013–
	Mark Wagy (Computer Science) Dissertation: <i>Enabling machine science through distributed human computing.</i>	2013–2016
	Joshua Auerbach (Computer Science) Dissertation: <i>The evolution of complexity in autonomous robots.</i>	2009–2013
	Zhenyu Lu (Computer Science) Dissertation: <i>Active learning with adaptive heterogeneous ensembles.</i>	2006–2011
MASTERS STUDENTS	Nate Powell (Statistics) Dissertation: <i>The role of Uncertainty in Categorical Perception Utilizing Statistical Learning in Robots.</i>	2015–2016
	Sam Kriegman (Co-advising; statistics) Dissertation: <i>Evolving spatially aggregated features from satellite imagery for regional modeling.</i>	2015–2016
	Afsoon Yousefi-Zowj (Computer Science) Dissertation: <i>A Genetic Programming approach to cost-sensitive control in wireless sensor networks.</i>	2014–2015
	Karol Zieba (Computer Science)	2014–2015

	Dissertation: <i>Evolving multi-modal sensors.</i>	
	David Buckingham (Computer Science) Dissertation: <i>Inductive learning of snowpack distribution models for improved estimation of areal snow water equivalent.</i>	2012–2014
	Christopher Pierce (Computer Science; project option.)	2012–2014
	Somdeb Chatterjee (Computer Science) Dissertation: <i>Crowdsourcing predictors for modeling behavioral outcomes.</i>	2010–2012
	Yunfei Zhao (Computer Science; project option.)	2010–2012
	Peter Hurd (Computer Science; project option.)	2008–2010
UNDERGRAD	Ari Larson (Computer Science)	2015–2016
THESES	Mariko Totten (Computer Science)	2014–2015
	Timothy Rizvanov (Computer Science)	2013–2014
	Fritz Davenport (Computer Science)	2013–2014
	Alex Berger (Business administration)	2013–2014
PHD DEFENSE	Thomas McAndrew , UVM	2016
COMMITTEE	Emily Cody , UVM	2016
MEMBER	Morgan Frank , UVM	2014
	Nicholas Chaumont , Keck Graduate Institute, USA	2014
	Ahmed Hamed , UVM	2014
	Jesse van den Kieboom , EPFL, Switzerland	2014
	Eitan Pechenik , UVM	2013
	Song Wang , UVM	2013
	Karim Chichakly , UVM	2013
	Nicolas Allgaier , UVM	2013
	Thierry Buecheler , University of Zurich, Switzerland	2012
	Sylvain Koos , UPMC, France	2011
	Peter Duerr , EPFL, Switzerland	2010
OTHER	Jake Williams (MSc qualifying exam committee member)	2013
INVITED TALKS		
Sept, 2017	IEEE/RSJ International Conference on Intelligent Robots and Systems	Keynote
Sept, 2017	Santa Fe Institute Working Group on Morphological Computation	Invited
June, 2017	Human Brain Project workshop on embodied cognition (Geneva, CH)	Invited
Feb, 2017	Santa Fe Institute Workshop on “Evolution and Restraint of Malicious Behavior in Complex Systems”	Invited
Oct, 2016	Presentation on “Speaking to a general audience” for the UVM IGERT Smart Grid graduate students	Invited
Sept, 2016	ASME Smart Materials, Adaptive Structures and Intelligent Systems Conference (Stowe, VT)	Invited
Sept, 2016	Santa Fe Institute Short Course on Innovation (Austin, TX)	Invited
Sept, 2016	Parallel Problem Solving from Nature conference. (University of Stirling, Edinburgh)	Keynote
May, 2016	Trusted autonomous systems . (ACFR, University of Sydney, Australia)	Invited
May, 2016	Trusted autonomous systems. (Intl. Symp. on Trusted Autonomous Systems, Australia)	Keynote
Mar, 2016	Some philosophical implications of evolutionary robotics . (UPitt HPS Annual Lecture Series)	Invited
Feb, 2016	Evo devo robo. (University of Toronto Cognitive Science Symposium)	Invited
Dec, 2015	ShanghAI lecture (simulcast to classrooms in Europe and Asia)	Invited
Dec, 2015	New Jersey Institute of Technology (host: Gal Haspel, biology)	Invited

Nov, 2015	UVM Honors College Plenary Lecture	Invited
May, 2015	Factory of Imagination lecture, Denmark (500 attendees)	Keynote
Feb, 2015	ShanghAI lecture (simulcast to classrooms in Europe and Asia)	Invited
Nov, 2014	Cornell Univeristy (host: Robert Shepherd, engineering)	Invited
Sept, 2014	University of Maryland workshop on soft robotics	Invited
Aug, 2014	Scifoo (hosts: Nature, Google, O'Reilly Media, Digital Science)	Invited
July, 2014	Workshop on Artificial Life and the Web at ALife conference	Invited
July, 2014	International Society for Artificial Life (ISAL) Summer School	Invited
June, 2014	DARPA Biological Technologies Office	Invited
June, 2014	Neural Systems & Behavior Summer School, Woods Hole Marine Biology Lab	Invited
May, 2014	EPFL, Lausanne, Switzerland (host: Auke Ispert)	Invited
Mar, 2014	National STEM Conference (Concept Schools), Cleveland, OH	Keynote
Mar, 2014	Air Force Research Laboratories (AFRL), Rome, NY	Invited
Dec, 2013	ShanghAI lecture (simulcast to 15 classrooms in Europe and Asia)	Invited
Nov, 2013	National Autonomous University of Mexico (host: Carlos Gershenson)	Invited
Oct, 2013	University of Iowa Delta Center (host: Mark Blumberg, psychology)	Invited
Sept, 2013	eSMC neuroscience/robotics graduate summer school (host: Andreas Engel)	Invited
Sept, 2013	Evolutionary Biology lecture, University of Zurich (host: Andreas Wagner)	Invited
Aug, 2013	Gordon Research Conference on Neuroethology (host: Heather Eisten, biology)	Invited
July, 2013	Soft Robotics Workshop at ETH, Zurich (host: Fumiya Iida, robotics)	Keynote
June, 2013	Evolution Meeting, SSE Presidential Symposium (host: Richard Lenski, biology)	Invited
June, 2013	Evolution Meeting, Education Symposium (host: George Gilchrist, NSF)	Invited
Mar, 2013	University of Texas at Austin (host: Dana Ballard, Computer Science)	Invited
Nov, 2012	Vassar College (host: John Long, biology)	Invited
Nov, 2012	Harvard University (host: Radhika Nagpal, engineering)	Invited
June, 2012	Tufts University (host: Michael Levin, biology)	Invited
Apr, 2012	Tufts University (host: Barry Trimmer, biology)	Invited
Jan, 2012	University of Southern California (host: Francisco Valero-Cuevas, bioengineering)	Invited
Dec, 2011	Castleton State College, Vermont	Invited
Nov, 2011	Global ShanghAI Lecture series (telecast from Vermont)	Invited
Oct, 2011	TEDx presentation, University of Vermont	Invited
July, 2011	Woods Hole Workshop on Computational Neuroscience (host: Terrence Sejnowski)	Invited
May, 2011	European Future and Emerging Technologies (FET) Conference, Budapest, HU	Keynote
Mar, 2011	Annual lecture, Simon Fraser University, Canada (host: Bernard Roitbert)	Invited
Jan, 2011	Cognitive Dynamical Systems Workshop, Salk Institute (host: T. Sejnowski)	Invited
Nov, 2010	Defense Sciences Research Council (DSRC), Washington, DC	Keynote
Oct, 2010	Michigan State University (host: Charles Ofria, computer science)	Invited
Sept, 2010	Perception & Action Workshop, Sante Fe Institute	Invited
Sept, 2010	Evolutionary Studies Seminar Series, Binghamton University	Invited
Sept, 2010	Intl Workshop on Guided Self-Organization, Indiana University	Invited
Sept, 2010	Rensselaer Polytechnic Institute (host: Brent Fajel, cognitive science)	Invited
Jan, 2010	Advancement of Artificial Cognitive Systems, ETH, Zurich	Keynote
Oct, 2009	University of Massachusetts, Amherst	Invited
Oct, 2009	Evolutionary Robotics Workshop at the IEEE IROS Conference	Invited
Sept, 2009	Union College, Schenectady, NY (host: John Rieffel, computer science)	Invited
May, 2009	McMaster Origins Institute, Canada	Invited
Mar, 2009	University of California San Diego (annual lecture; host: T. Sejnowski)	Keynote
Mar, 2009	Salk Institute (host: T. Sejnowski)	Invited

Feb, 2009	Hughes Research Laboratories, Malibu, CA	Invited
Feb, 2009	Pragyan technical festival, India (telecast from Vermont)	Invited
Oct, 2008	Dartmouth College (host: Tanzeem Choudhury)	Invited
Oct, 2008	McMaster University, Canada (host: Simon Haykin)	Invited
Sept, 2008	NAE's Frontiers of Engineering Symposium, New Mexico	Invited
June, 2008	Telluride Neuromorphic Engineering Workshop	Invited
June, 2008	Woods Hole Workshop on Computational Neuroscience	Invited
May, 2008	Genetic Programming Theory and Practice, University of Michigan	Keynote
Apr, 2008	Cognitive Engineering Workshop, Sardinia, IT	Invited
Jan, 2008	Boston University (host: Steven Grossberg)	Invited
Oct, 2007	Elder Education Enrichment program, Vermont	Invited
Oct, 2007	IBM T. J. Watson Research Center (host: Kerry Bernstein)	Invited
Aug, 2007	National Science Foundation <i>Science of Learning Workshop</i>	Invited
2004	AI Lab, University of Zurich, Switzerland	Invited
2003	EPSRC Workshop on Evolvability, Hertfordshire, UK	Invited
2002	Biozentrum, University of Basel, Switzerland	Invited
2002	Massachusetts Institute of Technology (host: Rodney Brooks)	Invited
2002	Woods Hole Marine Biological Laboratory (host: Jelle Atema)	Invited
2002	Cognitive Science Department, University of Sussex, UK	Invited

SELECTED MEDIA COVERAGE

May, 2016	" Reddit Brings a UVM Evolutionary Robotics Class to the World ". <i>Seven Days</i>
Dec, 2014	" Could A.I. be the end of the human race? " <i>RT America</i>
Dec, 2013	"Beware. Scientists are Creating Machines That Can Evolve on Their Own" <i>Smithsonian Magazine</i>
July, 2013	" Are Robots The Future Of Human Evolution? " <i>Through the Wormhole</i>
Feb, 2011	"Bringing Up Robots" <i>American Scientist</i>
Jan, 2011	"Artificial intelligence based on Darwin's idea" <i>Boston Globe</i>
June, 2008	"When Robots Live Among Us" (cover article) <i>Discovery Magazine</i>
Sept, 2007	"'Self-aware' space rovers would be speedy explorers" <i>Scientific American</i>
Nov, 2007	"Six Ideas that Will Change the World" <i>Esquire</i>
Jan, 2007	"The GOLEM in the machine" <i>Die Zeit</i>
Nov, 2006	"Injured Robot Learns to Limp" <i>Nature News</i>
Nov, 2006	"New Robot Shrugs Off Injury" <i>Science News</i>
Nov, 2006	"Robotic Recovery" <i>MIT Technology Review</i>
Nov, 2006	"Self-Aware Robots" <i>Discovery Channel</i>
Nov, 2006	"New Robot Can Sense Damage, Recover" <i>Forbes</i>
Nov, 2006	"New Robot Can Sense Damage and Compensate" <i>USA Today</i>
Nov, 2006	"Resilient Robot Hobbles Along, Even if Injured" <i>Scientific American</i>
Aug, 2002	"'Animals' grown from an artificial embryo" <i>New Scientist</i>

SCHOLARSHIPS AND PRIZES

- 2016 International Society of Artificial Life Education & Outreach Award
International Society of Artificial Life Best Paper of the Decade Award
- 2015 Awarded the Cyril G. Veinott Green and Gold Professorship of Computer Science
- 2014 STEM Innovation Award (awarded by the Concept Schools)
- 2013 Scientist of the Year, IEEE Green Mountain Section
- 2010 Presidential Early Career Award for Scientists and Engineers (CAREER/PECASE)
- 2008 UVM College of Engineering and Mathematical Sciences
Milt Silveira Junior Faculty Award
- 2007 One of *MIT Technology Review's* TR35: Top 35 Young Innovators Under 35
Microsoft New Faculty Fellowship
- 2002 Best Paper Award, Seventh Intl Conf on the Simulation of Adaptive Behavior
- 1999 Sante Fe Institute Complex Systems Summer School alumnus
- 1993–1997 McMaster University Dean's Honour List