

Simon D. Levy

Associate Professor of Computer Science
Washington and Lee University

Education

2003 Ph.D. in Computer Science from Brandeis University
1991 M.A. in Linguistics from the University of Connecticut.
1987 B.A. in Linguistics from Yale University

Professional Experience

2008 – present Associate Professor of Computer Science, Washington and Lee University
2009 – 2013 Department Head, Computer Science, Washington and Lee University
2002–2008 Assistant Professor of Computer Science, Washington and Lee University
2000-2001 Software Developer, Alphatech, Burlington MA
1997-1999 Software Developer, Links2Go, Woburn MA
1991-1996 Software Developer, Haskins Laboratories, New Haven CT

Publications last five years (*student co-author)

Levy, S.D., S. Bajracharya*, and R.W. Gayler (2013) Learning Behavior Hierarchies via High-Dimensional Sensor Projection. In *Learning Rich Representations from Low-Level Sensors: Papers from the 2013 AAAI Workshop*. AAAI Press.

Gayler, R.W., S.D. Levy, and R. Bod (2010) Explanatory Aspirations and the Scandal of Cognitive Neuroscience. *Proceedings of Brain-Inspired Cognitive Architectures 2010*. ISO Press.

Levy, S.D. (2010) Becoming Recursive: Toward a Computational Neuroscience Account of Recursion in Language and Thought. In H. van der Hulst (ed.) *Recursion and Human Language*. Mouton De Gruyter.

Gayler, R.W. and S.D. Levy (2009) A Distributed Basis for Analogical Mapping. *Proceedings of the Second International Analogy Conference*. NBU Press.

Levy, S. D. and R. Gayler (2009). “Lateral Inhibition” in a Fully Distributed Connectionist Architecture. *Proceedings of the Ninth International Conference on Cognitive Modeling*, Manchester, UK. Cognitive Science Society.

Edited Volumes last five years

Gayler, R.W. and S. D. Levy, eds. (2011) Compositional Connectionism in Cognitive Science II: The Localist / Distributed Dimension. *Connection Science* 23:2.

Invited Presentations last five years

Languages of Virginia: Talk given at the Virginia Forum, 26 March 2011.

Dynamical Cognition 2010: New Approach to Some Tough Old Problems: Guest lecture at Haskins Laboratories 12 April 2010

Hyperdimensional Cognitive Computing: Talk given at the University of Richmond Math/Computer Science Colloquium, 13 April 2009

Neural Computation, Analogical Promiscuity, and the Induction of Semantic Roles: A Preliminary Sketch, presented at Models and Simulations 3, 08 March 2009

HHMI-funded workshops

HPC, Grids, and Parallel Computing to Science Education, NCSA Access, Arlington, VA, 26 July 2008

Relevant administrative experience

2009 – 2013: Department Head, Computer Science, Washington and Lee University
2011 – 2012: Roger Mudd Center for the Study of Professional Ethics, Advisory Committee
2010 – 2011: Rupert H. Johnson Professorship in Leadership Studies, Advisory Committee
2007 – Present: Washington and Lee HHMI Program Advisory Committee
2005 – Present: Washington and Lee Neuroscience Advisory Committee
2003 – Present: Washington and Lee Hillel Faculty Adviser / Advisory Committee

Grants

2009-2013 Lenfest Grant, Washington and Lee University (\$4,500 each summer)
2006-2008 Glenn Grant, Washington and Lee University (\$4,000 each summer)
2007 NSF DUE Grant #0761338: Machine Learning Experiences in Artificial Intelligence: A Multi-Institutional Project. Project: Genetic Algorithms in the Real World (\$5,000)
2006 Washington and Lee Class of '65 Endowment for Excellence in Teaching (\$5,865)

Courses taught

CSCI 101 Survey of Computer Science
CSCI 102 Introduction to Computational Modeling
CSCI 112 Fundamentals of Programming (II)
CSCI 121 Scientific Computing
CSCI 180 Freshman Seminar: Robot and Mind
CSCI 250 Introduction to Robotics
CSCI 251 iPhone Application Programming
CSCI 312 Programming Language Design
CSCI 313 Theory of Computation
CSCI 315 Artificial Intelligence
CSCI 332 Compiler Construction
CSCI 397 Neural Networks and Graphical Models
CSCI 397 Genetic Algorithms
ANTH 252 Linguistic Anthropology

Student Research Supervised

- Suraj Bajracharya '15, honors, *A Python API for Simultaneous Localization and Mapping*
- Fred Gisa '16: *Android Software for a Miniature Aerial Surveillance Vehicle*
- Bipeen Acharya '15, Suraj Bajracharya '14, Olivier Mahame '14: *Software for Miniature Surveillance Expendable Vehicles*
- Dan Thornton '10, honors, *Steinhaus Graphs: Determining Connectedness*
- Sam Reed '10, R.E. Lee Summer Scholarship, *A Python Library for Robot Vision*
- Alex Jackson '09, R.E. Lee Summer Scholarship, *Parallelizing the Visual Map-Seeking Circuit for Robot Navigation*
- Alexander Khasymski '07, honors, *Evolving Languages for Robotic Foraging Tasks*
- Elizabeth E. Davis '06, honors, *Lexical Disambiguation in Machine Translation with Latent Semantic Analysis*
- Matt Reilley '06, Google Summer of Code scholarship on Lexical Disambiguation with LSA