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Cognitive Systems Architect,  
Gamma Two, Inc.  
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*EDUCATION*

**Ph.D.** Computer Science, University of Virginia, Charlottesville, May 2003.

**M.C.S.** Computer Science, University of Virginia, Charlottesville, May 2000.

**B.S.** Computer Science and Engineering, University of Colorado, Denver, May 1994,.

*PROFESSIONAL EXPERIENCE*

CTO, Gamma Two, Inc., Denver, CO, 2003 – present.

Software Development Consultant, Biophile, Inc. Charlottesville, VA, 2000 – 2003

Research Assistant, University of Virginia, Charlottesville, VA, 1997 – 2003.

Software Engineer, Hughes Information Technology Corp., Denver, Colorado, 1994 – 1996.

Instructor (Computer Science) University of Colorado, Denver, 1994 - 1997

*DISSERTATION*

Probability-Aware Planning and Execution System, University of Virginia, 2003.

*Awards, Patents*

2002 - 2006, Automated Storage and Retrieval Apparatus..., U.S. Patents # 6,467,285, 6,581,395,  
6,688,123, 6,941,762.

2001, Carilion Biomedical Institute Commercialization Prize

*Conference Session Chair, Invited Speaker*

PerMIS 2006 National Institutes of Standards and Technology Conference on Performance Metrics for  
Intelligent Systems

Co-chair American Association for Artificial Intelligence Spring Symposium on “Interaction between  
Humans and Autonomous Systems Extended Operation”, Stanford University, March 2004

*ARCHIVAL JOURNAL PUBLICATIONS*

Gunderson J. P. and Martin, W. N., “*Effects of Uncertainty on Plan Success in a Simulated  
Maintenance Robot Domain,*” Journal of Experimental and Theoretic Artificial  
Intelligence Special Issue: Autonomy Control Software, 12(2) April-June 2000,  
p153-164.

*PROCEEDINGS*

Gunderson, L.F. and Gunderson, J. P., "Ground Truthing Models of Social Behavior: Two Real World Examples", North American Association for Computational Social and Organizational Science Conference, Pittsburgh, PA, June 27 – 29, 2004

Gunderson, L.F. and J. P. Gunderson, J.P. "Using Data-Mining to Allow Robots to Discover the Preferences of Humans," IEEE International Conference on Integration of Knowledge Intensive Multi-Agent Systems, KIMAS '03, Cambridge, MA, September 30 – October 4, 2003.

Gunderson, J. P. and L. F. Gunderson, "Coupling Geographic Information Systems and Computer Simulations to Model Spatially Non-homogeneous Domains," Conference Proceedings: Geographic Information Systems in Environmental Resources Management 1996.

### *SYMPOSIA AND WORKSHOPS*

Gunderson, L. F. and Gunderson, J. P. , "Reliability Testing for Embodied Autonomous Systems" IROS 2007 Workshop on Performance Evaluation and Benchmarking for Intelligent Robots and Systems, San Diego, CA, Nov 02, 2007.

Gunderson J. P. and Gunderson, L. F., "Autonomy (What's it Good for?)", Performance Metrics for Intelligent Systems, Gaithersburg, MD, August 28 - 30, 2007.

Gunderson, J. P. and Gunderson, L. F., "Reification: What is it and Why Should I Care?", Performance Metrics for Intelligent Systems, Gaithersburg, MD, August 21 - 23, 2006.

Gunderson, L. F., Kilgore T., and Gunderson, J. P., "Living with a Personal Disk Jockey – the Start of the Journey", AAAI Spring Symposium, Palo Alto, CA, March, 2005.

Gunderson, J. P. and Gunderson, L. F., "Intelligence  $\neq$  Autonomy  $\neq$  Capability", Performance Metrics for Intelligent Systems, Gaithersburg, MD, August 24 - 26, 2004.

Gunderson, J.P. and Gunderson, L. F., "Mom! The Vacuum Cleaner is Chasing the Dog Again!" Performance Metrics for Intelligent Systems, Gaithersburg, MD, September 16-18, 2003.

Gunderson, J.P. and Gunderson, L. F., "Integrating Effective Planning Horizons into an Intelligent Systems Architecture," Performance Metrics for Intelligent Systems, Gaithersburg, MD, August 13-15 2002.

Gunderson, J.P. and Martin W. N., "Applications of Data Mining to Sub-Plan Selection in Automated Planning Systems," Proceedings of the IEEE Systems, Man and Cybernetics Conference, 2001, pgs. 1459 -- 1464. Tucson, AZ Oct. 7 -- 10, 2001.

Gunderson, J. P. and Ferrer, G. J., "A linear time transform for Probability-Aware Planners," Proceedings IEEE: Systems, Man, and Cybernetics 2000, pgs. 334 - 339. Oct 8 - 11, 2000.

Gunderson, J. P., "Adaptive Goal Prioritization by Agents in Dynamic Environments," IEEE Systems, Man, and Cybernetics 2000, pgs 1944 - 1948 Oct 8 - 11, 2000.

Gunderson, J. P. and Gunderson, L. F. "Applying Possibility Theory and Unsupervised Classification to Remotely Sensed Images that Contain Multimodal Signatures," International Institute of General Systems Studies 2nd Workshop Proceedings 1997.