Stephen Shervais, Ph.D.
Associate Professor
Accounting and Information Systems
College of Business and Public Administration
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Professional Interests

Academic Background

Ph.D. Portland State University, Portland, OR, Systems Science, 2000
M.S. University of Denver, Washington, DC campus, Systems Mgmt, 1991
M.A. San Jose State University, San Jose, CA, Economics, 1967
B.A. San Jose State University, San Jose, CA, Economics, 1966

Memberships

International Genetic Epidemiology Society, 2010-Present
International Simulations and Gaming Association, 2010-Present
Society for Judgment and Decision-Making, 2010-Present
IEEE Computing, 2002-Present
International Society for Artificial Life (founding member), 2002-Present
Association for Computing Machinery, 1995-Present
IEEE Systems Man and Cybernetics, 1995-Present
Institute for Aeronautics and Astronautics (Senior Member), 1980-2005

Work Experience

Academic Experience

Associate Professor, Eastern Washington University (1999 - Present), Cheney, Washington. Management Information Systems

Full time graduate student, Independent consultant, database applications, Portland State University (1994 - 1999), Portland, Oregon. Systems Science Ph.D. Program

Non-Academic Experience

National

Technical Manager, CACI Products Company (1992 - 1994), Arlington, Virginia. Database Projects

Member, Technical Staff, Electrospace Systems, Inc (1989 - 1992), Arlington, Virginia. Database projects

Senior Information Systems Officer, Defense Intelligence Agency (1987 - 1989), Washington, District of Columbia. Secure local area net design, development, and installation.

International

Director, Defense Intelligence Agency Chairman's Briefing Team (1987 - 1988), Washington, District of Columbia. Prepared daily and weekly intelligence presentations for the Chairman, Joint Chiefs of Staff, the Secretary of Defense, and the Senate and House Select Committees on Intelligence.

Senior Soviet Command and Control Analyst, Defense Intelligence Agency (1985 - 1987), Washington, District

of Columbia.

Director of Intelligence, Osan Airbase (1984 - 1985), Osan , Korea.

Director, HQ USAF Tactical Estimates Branch, Threat Estimates Division (1980 - 1984), Washington, District of Columbia.

Intelligence Officer, United States Air Force (1967 - 1989), Various locations, Unknown.

Consulting

2005-2006: Oregon Health and Sciences University , Consultant to Oregon Health and Sciences University computational informatics research project.

2005-2006: Knowledge and Information Systems, Invited to be reviewer for the quarterly, peer-reviewed journal

2004-2005: Oregon Health Sciences University, MIS consultant on DNA chip analysis of genetic components of the problems of aging.

1995-1996 - 2004-2005: Oregon Health Sciences University, Consultant to Oregon Health and Sciences University, Kramer Lab, helping them with a bio-informatics database for the study of genetic diseases.

2003-2004: IEEE American Control Conference, Invited to be reviewer for the 2003 IEEE American Control Conference

1995-1996: Washington County, Oregon, MIS Department, Provided advice on conversion of their licensing database system to Foxpro for Windows.

Courses Taught

Courses from the Teaching Schedule: Advanced Data Analysis for Business, Business Applications Program Design, Business Simulation, Data Analysis for Business, Directed Study, Game Theory, Information Technology and the Organization, Information Technology in Business, Systems Analysis and Design, Systems Project

Intellectual Contributions:

Refereed Articles

Shervais, S., Kramer, P., Westaway, S., Cox, N., & Zwick, M. (2010). Reconstructability Analysis as a Tool for Identifying Gene-Gene Interactions in Studies of Human Diseases. Statistical Applications in Genetics and Molecular Biology.

Wakeland, W., Shervais, S., & Raffo, D. (2005). Heuristic Optimization as a V & V Tool for Software Process Simulation Models. The Software Process Improvement and Practice Journal, 2005 (10), 301-309.

Shervais, S. (2004). Reconstructability analysis detection of optimal gene order in genetic algorithms. Kybernetes, 33 (5/6).

Shervais, S., Shannon, T., & Lendaris, G. (2003). Intelligent Supply chain Management Using Adaptive Critic Learning. IEEE Transactions on Systems, Man, and Cybernetics, 33 (2).

Shervais, S. & Zwick, M. (2003). Ordering Genetic Algorithm Genomes With Reconstructabilty Analysis. International Journal of General Systems, 32 (5), 1-13.

Refereed Proceedings

Full Paper

Shannon, T., Shervais, S., & Christensen, S. (in press, 2013). Task Diversity and the Optimality of Satisficing. Global Business and International Management Conference.

Shervais, S. & Shannon, T. T. (2012). Satisficing vs Exploration in real time reporting of traffic flow. Conference on Soft Computing and Intelligent Systems. Kobe, Japan, November 2012.

Shervais, S., Zwick, M., & Kramer, P. (2012). Gene-Gene Interactions in Alzheimer's Disease. Conference on Soft Computing and Intelligent Systems. Kobe, Japan, November 2012.

Shannon, T. & Shervais, S. (2011). Satisficing and the Cost of Exploration in a Non-Stationary Landscape. Society for Judgment and Decision Making Conference.

Shannon, T. T. & Shervais, S. (2011). Q-Learning, Satisficing and the Cost of Exploration. International Academy of Business and Public Administration Disciplines.

Shervais, S. & Zwick, M. (2007). Using Reconstructability Analysis for Input Variable Reduction: A Business Example. Proceedings of the IEEE Conference on Information Reuse and Integration, Las Vegas, July 2007, IEEE.

Shervais, S. (2005). System Identification Using Off-Optimum Data from a Genetic Algorithm. Genetic and Evolutionary Computation Conference.

Shervais, S., Zwick, M., & Kramer, P. (2005). Reconstructability Analysis As A Tool For Identifying Gene-Gene Interactions In Studies Of Human Diseases. IEEE International Conference on Systems, Man, and Cybernetics.

Shervais, S., Zwick, M., & Kramer, P. (2005). Ordering Genetic Algorithm Genomes With Reconstructability Analysis: Discrete Models. IEEE International Conference on Systems, Man, and Cybernetics.

Wakeland, W., Shervais, S., & Raffo, D. (2004). Heuristic Verification and Validation of Software Process Simulation Models. Software Process Simulation Modeling Workshop / International Conference on Software Engineering.

Shervais, S. (2003). Using Reconstructability Analysis to Select Input Variables for Artificial Neural Networks. International Joint Conference on Neural Networks.

Shervais, S. (2002). Reconstructability Analysis Detection of Optimal Gene Order in Genetic Algorithms. Joint Conference of the W.O.S.C. and I.I.G S.S.

Shervais, S., Shannon, T., & Lendaris, G. (2001). Adaptive Critic based approximate dynamic programming: A new tool for smart manufacturing. IJCAI-2001 Workshop on Artificial Intelligence and Manufacturing.

Shervais, S. & Shannon, T. (2001). Improving theoretically-optimal and quasi-optimal inventory and transportation policies using adaptive critic based approximate dynamic programming. International Joint Conference on Neural Networks.

Shervais, S. & Shannon, T. (2001). Improving Theoretically-optimal and Quasi-optimal Inventory and Transportation Policies Using Adaptive Critic Based Approximate Dynamic Programming. International Joint Conference on Neural Networks.

Shervais, S. & Shannon, T. (2001). Fuzzy-controller Design Using Adaptive Critic Based Approximate Dynamic Programming. North American Fuzzy Information Processing Society Conference .

Shervais, S. & Shannon, T. (2001). Fuzzy-controller design using adaptive critic based approximate dynamic programming. North American Fuzzy Information Processing Society Conference .

Shervais, S. (2000). Developing Improved Inventory And Transportation Policies For Distribution Systems Using Genetic Algorithm And Neural Network Methods. World Conference on the Systems Sciences.

Shervais, S. & Shannon, T. (2000). Improving Quasi-optimal Inventory and Transportation Policies Using Adaptive Critic Based Approximate Dynamic Programming. IEEE International Conference on Systems, Man, and Cybernetics.

Presentation of Refereed Papers

International

Shannon, T. T. & Shervais, S. (2011-2012, July). Q-Learning, Satisficing and the Cost of Exploration. International Academy of Business and Public Administration Disciplines, Honolulu, Hawaii.

Shervais, S. & Zwick, M. (2007-2008, July). Using Reconstructability Analysis for Input Variable Reduction: A Business Example. IEEE Conference on Information Reuse and Integration, Las Vegas, Nevada.

Shervais, S., Zwick, M., & Kramer, P. (2005-2006, October). Reconstructability Analysis As A Tool For Identifying Gene-Gene Interactions In Studies Of Human Diseases. IEEE International Conference on Systems, Man, and Cybernetics, Kona, Hawaii.

Shervais, S. & Zwick, M. (2005-2006, October). Ordering Genetic Algorithm Genomes With Reconstructability Analysis: Discrete Models. IEEE International Conference on Systems, Man, and Cybernetics, Kona, Hawaii.

Shervais, S. (2005-2006, July). System Identification Using Off-Optimum Data from a Genetic Algorithm. Genetic and Evolutionary Computation Conference, Washington, District of Columbia.

Shervais, S. (2003-2004, July). Using Reconstructability Analysis to Select Input Variables for Artificial Neural Networks. International Joint Conference on Neural Networks, Portland, Oregon.

Shervais, S. (2002-2003, March). Reconstructability Analysis Detection of Optimal Gene Order in Genetic Algorithms. Joint Conference of the W.O.S.C. and I.I.G S.S, Pittsburgh, Pennsylvania.

Shervais, S. (2001-2002, August). Adaptive critic based approximate dynamic programming: a new tool for smart manufacturing. IJCAI-2001 Workshop on Artificial Intelligence and Manufacturing, Seattle,

Washington.

Shervais, S. (2001-2002, July). Improving thoretically-optimal and quasi-optimal inventory and transportation policies using adaptive criti base approximate dynamic programming. International Joint Conference on Neural Networks, Washington, District of Columbia.

Shervais, S. & Shannon, T. (2001-2002, July). Fuzzy-controller design using adaptive critic based approximate dynamic programming. North American Fuzzy Information Processing Society Conference , Vancouver, Canada.

Shervais, S. & Shannon, T. (2001-2002, July). Improving theoretically-optimal and quasi-optimal inventory and transportation policies using adaptive critic based approximate dynamic programming. International Joint Conference on Neural Networks, Washington, District of Columbia.

Shervais, S. & Shannon, T. (2000-2001, October). Improving Quasi-optimal Inventory and Transportation Policies Using Adaptive Critic Based Approximate Dynamic Programming. IEEE International Conference on Systems, Man, and Cybernetics, Nashville, Tennessee.

Shervais, S. (2000-2001, July). Developing Improved Inventory And Transportation Policies For Distribution Systems Using Genetic Algorithm And Neural Network Methods. World Conference on the Systems Sciences, Toronto, Canada.

Presentation of Non-Refereed Papers

International

Spencer, MD, J., Langdon, Ph.D., P., & Shervais, S. (2015-2016, October). Landing an F-35 on a Nimitz type Aircraft Carrier: The Collective Mind and how to have one. Workshop on Resilience through Teamwork, University of Lancaster, Lancaster, United Kingdom.

Shervais, S., Kramer, P., Westaway, S., Cox, N. J., & Zwick, M. (2009-2010). Reconstructability Analysis as a Tool for Identifying Gene-Gene Interactions in Studies of Human Diseases. International Genetic Epidemiology Society Annual Meeting 2009, Kahuku, Hawaii.

Local

Shervais, S. (2000-2001, October). Adaptive Control Of A Multi-Echelon Inventory System. Dissertation Defense, Portland, Oregon.

National

Shannon, T. T. & Shervais, S. (2011-2012). When is satisficing instead of exploring optimal for managing multistage processes. Society for Judgment and Decision Making Conference, Seattle, Washington.

Shervais, S. (1999-2000, April). Developing Improved Inventory and Transportation Policies For Physical Distribution Systems Using Genetic Algorithm And Neural Network Methods, Preliminary Results. SPIE Conference on Applications and Science of Computational Intelligence, Orlando, Florida.

State

Otto, J., Dean, D., Shervais, S., & Crary, G. (2015-2016, March). A Collaborative Approach to Campus IT Governance: The Academic Systems Advisory Committee (ASAC) at EWU. Washington State Higher Education Technology Conference, Spokane, WA., Spokane, Washington.

Other Research Activities

Other

2002-2003: , ., . Developed Artificial Neural Net tool for use by students in Expert Systems class, Spring. Developed Expert Systems rule specification software for use by students in Expert Systems class, Spring. Developed genetic algorithm tool for use by students in Expert Systems Class, Spring.

Service:

Service to the University

Department Assignments

Chair:

2007-2008: AIS Department Personnel Committee

Member:

2006-2007 – 2010-2011: AIS Department Faculty

2006-2007: AIS Department Personnel Committee

College Assignments

Member:

2011-2012 – 2012-2013: Academic Systems Computing Council

2008-2009 – 2012-2013: Assessment Coordinators Committee

2008-2009 – 2012-2013: Business Graduate Faculty

2008-2009 – 2012-2013: Business Faculty

2005-2006 – 2012-2013: CBPA Faculty

2006-2007 – 2007-2008: Business Graduate Faculty

2006-2007 – 2007-2008: Business Faculty

2006-2007 – 2007-2008: College Personnel Committee

2005-2006 – 2006-2007: Business Accreditation Committee

2005-2006: College Personnel

2005-2006: Technology

University Assignments

Member:

2003-2004 – 2004-2005: Faculty Senate: AIS Representative

University Assignments

Member:

2010-2011 – 2015-2016: Faculty Senate: AIS Representative

2010-2011 – 2014-2015: Rules Committee: At Large representative

Faculty Development

Assurance of Learning - Professional Development

2013-2014: Assurance of Learning Seminar, Spokane, Washington. Dr. Karen Tarnoff conducted a two-day seminar for CBPA faculty. October 2013

2009-2010: Assessment Coordinators Workshop Spring 2010, Spokane, Washington.

Research-Related Conference/Seminar

2007-2008: Las Vegas, Nevada. IEEE Conference on Information Reuse and Integration, INI07

2006-2007: Seattle, Washington. Genetic and Evolutionary Computation Conference (GECCO), July

2005-2006: Kona, Hawaii. IEEE Conference on Systems, Man, and Cybernetics, October

2004-2005: Washington, District of Columbia. Genetic and Evolutionary Computation Conference (GECCO), June

2001-2002: Seattle, Washington. International Joint Conference on Artificial Intelligence 2001 and invited workshop on Smart Manufacturing, August.

2001-2002: Vancouver, Washington. North American Fuzzy Information Processing Society Conference 2001, July

2001-2002: Washington, District of Columbia. International Joint Conference on Neural Networks, July

2000-2001: Portland, Oregon. ALife VII Conference, August

2000-2001: Toronto, Canada. World Congress of the Systems Sciences and the International Society for the Systems Sciences, July

1999-2000: Washington, District of Columbia. Congress on Evolutionary Computation, July

1999-2000: Washington, District of Columbia. International Joint Conference on Neural Networks

Instruction Related Workshop

2008-2009: CBPA Spring 2009 Writing Workshop, Spokane, Washington.

Professional Conferences

2013-2014: MAICS2014 The 25th Modern Artificial Intelligence and Cognitive Science Conference, Spokane, Washington.

The MAICS conference is a forum for the exchange of wide range of research ideas related to all subareas of Artificial Intelligence and Cognitive Sciences including but not limited to:

- Computational Intelligence
- Intelligent Systems
- Natural Language Processing
- Computational Linguistics
- Computer Supported Collaborative Learning
- Identity Science
- Data Science
- Logic and Reasoning
- Fuzzy Logic
- Neural Networks
- Evolutionary Computation
- Data Mining and Visualization
- Knowledge Representation
- Brain-Computer Interface
- Robotics
- Philosophy of Mind
- Web Intelligence Applications
- Machine Learning
- Computational Theories of Learning
- Cybersecurity Applications

2007-2008: Spokane, Washington. Inland Northwest Health Services Northwest Management Information Systems Conference

Professional Seminars / Workshops

2014-2015: Fred Pryor Seminars Project Management Workshop, Spokane, Washington. At this seminar, you'll learn expert techniques for building successful project teams, creating efficient plans and implementing effective tracking measures to ensure your projects come in on deadline and on budget. In one fast-paced, well-designed day,
we'll cover all the essential elements of project management. We'll provide practical information to not only help you save time,
but also increase the success of your projects.

Other Activities

2013-2014 - ASAC Technical Subcommittee Equipment Test Report : Currently, I am working on a report to ASAC on a technical evaluation of a tablet/laptop computer to make recommendations as to whether it should be adopted by the University. The attached document is a draft

2013-2014 - ASAC Technical Subcommittee Service :

I am maintaining my professional qualifications by contributing to the ASAC Technical Subcommittee. The attached document is the Charge for the subcommittee.

2013-2014 - Academic Systems Advisory Committee (ASAC) : As a member of the Academic Systems Advisory Committee, under the Faculty Organization, I am not only providing service to the University, but I am maintaining my professional Management Information Systems qualifications by consulting with and advising the EWU IT Department on technical matters relating to the provision of IT services to the faculty and students.

2010-2011 - : According to the editors of the Berkeley Electronic Press, as of 5 October 2010, my journal article 'Reconstructability Analysis as a Tool for Identifying Gene-Gene Interactions in Studies of Human

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