

Joshua Jones

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College of Computing
Georgia Institute of Technology
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Education

Georgia Institute of Technology, Computer Science, PhD student, 8/2002 - present.

University of New Hampshire, Summa Cum Laude, Computer Science, B.S., 1999.

Academic Honors

President's Fellowship, Georgia Inst. of Tech., 2002-current

National Merit Scholar, University of NH, 1995-1999

Presidential Honors Student, Academic Merit, University of NH 5/99

Computer Science Alumni Achievement Award for Scholarship, Leadership and Creativity, University of NH 5/99

John and Rose Mendelson Kurtz Scholarship, University of NH, 1997-1998

Publications

Joshua Jones and Ashok Goel, "**Knowledge Organization and Structural Credit Assignment**", In IJCAI-05 Workshop on Reasoning, Representation and Learning in Computer Games, Edinburgh, 2005.

Patrick Ulam, Ashok Goel, Joshua Jones and William Murdoch, "**Using Model-Based Reflection to Guide Reinforcement Learning**", In IJCAI-05 Workshop on Reasoning, Representation and Learning in Computer Games, Edinburgh, 2005.

Joshua Jones and Ashok Goel, "**Hierarchical Judgement Composition: Revisiting the Structural Credit Assignment Problem**", In AAAI-04 Workshop on Challenges in Game AI, San Jose, 2004.

Patrick Ulam, Ashok Goel and Joshua Jones, "**Reflection in Action: Model-Based Self-Adaptation in Game Playing Agents**", In AAAI-04 Workshop on Challenges in Game AI, 2004.

Research Interests

Current work focuses on model based reflection/adaptation and structured knowledge representation. This work attempts to find and make explicit trade-offs between knowledge based and statistical machine learning techniques by using domain knowledge to define high-level organizational structure for process and/or knowledge representation, and then using these representations to focus statistical techniques. Other recent research areas have included applied statistical machine learning and computational complexity theory.

Professional Affiliations

Association for Computing Machinery
American Association for Artificial Intelligence

Industry Experience

Contractor, Meetinghouse. 5/04 – 8/04 and 5/05 to 8/05.

Worked on porting Meetinghouse wireless security software to the Symbian and Linux operating systems.

Software Engineer, Qosnetics/Agilent Technologies. 6/99 to 7/02.

Most notably, technical lead in team responsible for integrating Qosnetics' router test system with Agilent Technologies' RouterTester system after acquisition. Also designed, implemented, and maintained a comprehensive network communications library based on Berkeley sockets and packet filters, among many other projects during this employment.

Software Engineer (Intern), Compaq/Digital Equipment Corp. 5/98 to 8/98.

Designed, implemented and executed test suite for the IPv6 basic API. Worked on a highly individual basis.

Software Engineer, Intellitech Corp. 6/97 to 9/97.

Worked on TCP/IP client-server application, both on UNIX platforms using the socket library and on DOS, utilizing code fragments from a public domain FTP application. Also worked on updating the license-protection system for Intellitech's commercially available projects, and performed some system administration tasks.

Technician, UNH InterOperability Lab 5/96 to 6/97.

Worked as part of a team developing an RMON-2 test suite, including planning of test procedures for validation of MIB object conformance to IETF standard, for purposes of product interoperability. Planned and coded macro-based packet generation/transmission software using C++ and the FL X Toolkit. General duties included execution of existing test suites for customers, configuration of routers and endstations for IP and routing information, and monitoring of the local network, including detection/resolution of unreasonably high sources of MAC-level errors and planning for subnetting to reduce overall network load, and resolution of connectivity problems.