

Jay R. Halcomb

Logician and Computer Programmer
H&S Information Systems

Education

All but completed dissertation for the Ph.D. in Philosophy at the University of Arizona. (In 1990, passed the Preliminary Examinations for the Ph.D.)

Other education includes: M.A., Philosophy, University of Arizona, 1987. B.A., Philosophy (w/ Distinction), Sonoma State University, 1978.

In Philosophy, major areas of study are: mathematical logic, theoretical linguistics, philosophy of logic, philosophy of language, computer science (AI and cognitive science), the philosophy and foundations of mathematics, and epistemology. At Arizona minor was Mathematics. (22 graduate units in Set Theory, Topology, Abstract Algebra, and Advanced Analysis).

5 years of experience teaching logic at the University level, at the University of Arizona and at Sonoma State University. His teaching included the courses: Introduction to Logic, Advanced Logic, and Philosophy of Logic.

- Dissertation: Formal Semantics of Hypothetical Reasoning (Topological and Algebraic Interpretations of Subjunctive Conditionals), University of Arizona, 1990, unpublished, 120 pp.
- Masters: Deontic Logic, University of Arizona, 1987, unpublished, 45 pp.
- Honors: Montague Grammars, SSU, 1978, unpublished, 67 pp.

Employment

2002 - present. Partner, H&S Information Systems, Logician and programmer. Principal project: The **Tau Knowledge Base and Extensible Theorem Prover**.

2000-2001: Senior Knowledge Engineer, Teknowledge Corporation 1810 Embarcadero Road, Palo Alto, CA 94303. Phone: 650-424-0500. Expert systems and AI applications, Prolog and CycL. Projects: FASIT (Fast Analyst Support Inference Tool), Sigma (a web-based environment for ontology development and knowledge engineering.).

1990-1999: Freelance computer consulting in the S.F. Bay area. Work for nonprofit organizations (webpages), businesses (database programming).

1987-1988: Interactive Concepts 40 N. Swan, Suite 207, Tucson, AZ 85718. (A communications systems design firm). Programmer/mathematician.

1983-1985: Aridlands Watershed Management, U.S.D.A., 2000 E. Allen Rd., Tucson, AZ 85718. Statistical programmer

1981-1982: Personal Computer Instruction, Tucson, AZ. As a contractor, instructed individuals, businesses in personal computer use, and wrote course and promotional materials.

1979: Computing Services, Santa Rosa Junior College, Santa Rosa, CA 91405. Programmer/analyst: financial and student records database.

1976-1978: Philosophy Dept., Sonoma State University, Rohnert Park, CA 91428. Programmer: developed various educational logic programs for Phil. Dept., under grant funding (authored grant).

Publications

- Halcomb, J. and Schulz, R. (2005): "Tau: A Web-Deployed Hybrid Prover for First-Order Logic with Identity, with Optional Inductive Proof", CADE-20 Workshop on Empirically Successful Classical Automated Reasoning (ESCAR), held 22nd-23rd July, 2005 at the 20th International Conference on Automated Deduction (CADE) Tallinn, Estonia.
- Halcomb, J. and Schulz, R. (2005): An overview of Tau, paper for the CADE-20 Workshop on Empirically Successful Classical Automated Reasoning (ESCAR), held 22nd-23rd July, 2005 at the 20th International Conference on Automated Deduction (CADE) Tallinn, Estonia, 22nd July - 26th July, 2005.
- Halcomb, J. and Pease, A., (2001): "On Treating Negation within XSB" (and upon extending XSB programming with a form of logical negation, and its relations to existing varieties of logic programming), AAI Spring Symposium 2001 Workshop on Answer Set Programming, Stanford University.

Synergistic Activities

- Member, Program Committee, the FLoC'06 Workshop on Empirically Successful Computerized Reasoning (ESCoR), 21st August 2006, part of the 3rd International Joint Conference on Automated Reasoning, at Seattle, USA, 10th - 22nd August, 2006.
- Presentation, Stanford Mathematical Logic Seminars, Axiomatizing Einstein's Mice, Nov. 8, 2005.
- Participant, Empirically Successful Automated Reasoners (ESCAR), CADE-20, 20th International Conference on Automated Deduction, Tallinn, Estonia, 22 July - 27 July, 2005.
- Participant, Geographical Domain and Geographical Information Systems: EuroConference on the Ontology and Epistemology for Spatial Data Standards, La Londe les Maures, France, 22 - 27 September, 2000.
- Participant, Answer Set Programming: Towards Efficient and Scalable Knowledge Representation and Reasoning, 2001 AAI Spring Symposium, Stanford, CA, March 26-28, 2001.
- Participant, 1st North American Summer School in Logic, Language, and Information with the 11th Logic, Language, and Computation Colloquium - NASSLLI '02, Stanford, CA, June 24-30, 2002.

Collaborators and Other Affiliations

Common Logic Standard: as ISO effort towards an international standard for Common Logic, now in Final Draft. This project was assigned to WG2 (Metadata) under SC32 (Data Interchange) of ISO/IEC JTC1. Other participants: Harry Delugach (Ed.) , Patrick Hayes, Chris Menzel, Randall Schulz, John Sowa, and others.

Association for Computing Machinery, Member

American Philosophical Association, Member

Committee on Philosophy and Computers, American Philosophical Association, Member

American Mathematical Association, Member

Association for Automated Reasoning, Member

IEEE Standard Upper Ontology (SUO) Working Group list-serv

Foundations of Mathematics list-serv

Ontolog community list-serv - ontology, ontological engineering and semantic technology