Guide to the Richard Earl Fikes Papers

Peter Chan
Stanford University, Libraries. Department of Special Collections and University Archives
Stanford, California
2008
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Note
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Overview
Call Number: SC0881
Creator: Fikes, Richard E.
Creator: Fikes, Richard E.
Title: Richard Earl Fikes papers
Dates: 1965-2004
Physical Description: 20 Linear feet
Language(s): The materials are in English.
Repository: Department of Special Collections and University Archives
Green Library
557 Escondido Mall
Stanford, CA 94305-6064
Email: specialcollections@stanford.edu
Phone: (650) 725-1022
URL: http://library.stanford.edu/spc

Biographical/Historical note
Richard Earl Fikes is Professor (Research) Emeritus in the Computer Science department of Stanford University.

Richard has a long and distinguished record as an innovative leader in the development of techniques for effectively representing and using knowledge in computer systems. He is best known as co-developer of the STRIPS (Stanford Research Institute Problem Solver) automatic planning system, KIF (Knowledge Interchange Format), the Ontolingua ontology representation language and Web-based ontology development environment, the OKBC (Open Knowledge Base Connectivity) API for knowledge servers, and IntelliCorp's KEE (Knowledge Engineering Environment) system.

At Stanford, he leded projects focused on developing large-scale distributed repositories of computer-interpretable knowledge, collaborative development of multi-use ontologies, enabling technology for the Semantic Web, reasoning methods applicable to large-scale knowledge bases, and knowledge-based technology for intelligence analysts.

He was principal investigator of major projects for DARPA in the High Performance Knowledge Base (HPKB) program, the Rapid Knowledge Formation (RKF) program, the DARPA (Defense Advanced Research Projects Agency) Agent Markup Language (DAML) program, the UltraLog program, and the Rapid Design Exploration and Optimization (RaDEO) program.

Richard was born on October 4, 1942 in San Antontio, Texas. He received his B.A. in Mathematics with honors from the University of Texas at Austin in 1963, his M.A. in Mathematics from the University of Texas at Austin in 1965, and his Ph.D. in Computer Science from Carnegie Mellon University in 1968.

Richard was a Research Associate in the Computer Science Department at the Carnegie-Mellon University from 1968 to 1969. He worked as a Senior Mathematician in SRI (Stanford Research Institute) from 1969-1976. He was a member of Research Staff in Xerox Palo Alto Research Center from 1976 to 1983. He joined IntelliCorp Inc. in 1986 as the Director of Research and Development in 1983 and was the Vice President of Research when he left the company in 1987. He started in Price Waterhouse Technology Center in 1987 as a Principal Scientist and was the Chief Scientist in 1991 when he left the company. He served as the Associate Director, Heuristic Programming Project, Knowledge Systems Laboratory, Stanford University in 1991. He was a Professor (Research), Computer Science Department from 1991 to 2006.

Richard was elected a Founding Fellow of the American Association for Artificial Intelligence (AAAI) in 1990. He also chaired, co-chaired, organized, or served on the program committee of numerous professional gatherings such as AAAI86 and IJCAI89.

Access Terms
SRI International
Stanford University. Computer Science Department.
Xerox Corporation. Palo Alto Research Center.
Knowledge representation (Information theory)

Series 1 Correspondence 1969-2005
Language of Material: English
### Series 1 Correspondence 1969-2005


<table>
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Language of Material: English

### Series 2 Graduate Studies 1996

<table>
<thead>
<tr>
<th>Box 1</th>
<th>University of Texas at Austin</th>
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<tr>
<td>Box 1</td>
<td>Master thesis by Richard Fikes at the University of Texas at Austin 1965</td>
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<td>SYCK – 63, A FORTRAN-63 SYNTAX CHECKER, 1965 1965</td>
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<td>Box 1</td>
<td>Misc. Projects at the University of Texas at Austin: 1963-1965</td>
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<td>Box 1</td>
<td>Scope and Content Note</td>
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<td></td>
<td>POLSOL: A Heuristic Program for Solving Polyominoe Problems, 1965</td>
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<td>Storing Programs in a Processed Form, 1965</td>
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<td>Student Program Evaluating Program, 1964</td>
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<td>A Human Arithmetic Simulation, 1963</td>
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<td>Language Learning (Project AMOS), n.d.</td>
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<td>A Phase Structure Grammar for LIPL, 1964</td>
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<td>SYCK : A System for Checking the Syntax of FORTRAN-63 Programs, 1965</td>
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<td>Contingency Tables and Association Coefficients, 1965</td>
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<td>Card-To-Tape (088 to 164), n.d.</td>
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<th>Carnegie-Mellon University</th>
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<td>Box 1</td>
<td>Ph. D. Qualifying Examinations</td>
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<td>Published papers at Carnegie-Mellon University 1968, 1970</td>
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<td>REF-ARF: A System for Solving Problems Stated as Procedures, 1970</td>
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<td>Stating Problems as Procedures to a General Problem Solving Problem, 1968</td>
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<td>Steps toward a general-purpose time-sharing system using large capacity core storage and TSS/360 - Progress report, 1968</td>
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| Box 2 | A Heuristic Program for Solving Problems Stated as Nondeterministic Procedures, 1968 (1 of 2) 1968 |
| Box 2 | A Heuristic Program for Solving Problems Stated as Nondeterministic Procedures, 1968 (2 of 2) 1968 |
| Box 3 | Computer program listings at the Carnegie-Mellon University (1 of 6): |
| Box 4 | Computer program listings at the Carnegie-Mellon University (2 of 6): 1969 |

Scope and Content Note

MSCB, MSCB-2, SORT, MAGIC, CRYPT-1, 3 COINS, QUEE, HYPO, n.d.

Guide to the Richard Earl Fikes Papers

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Carnegie-Mellon University

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Scope and Content Note

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Scope and Content Note

Box 7

Scope and Content Note

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Computer program listings at the Carnegie-Mellon University (6 of 6):
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Series 3 Private Sector

SRI International

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Published papers at SRI (1 of 7): 1971-1973
Scope and Content Note

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Published papers at SRI (2 of 7): 1970-1971
Scope and Content Note

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Published papers at SRI (3 of 7): 1970-1971
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Published papers at SRI (4 of 7): 1972
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Learning and Executing Generalized Robot Plans, 1972 Some New Directions in Robot Problem Solving, 1972 A Set of Transportation Tasks for Factotem (Draft), 1972
Box 9

*Published papers at SRI (5 of 7): 1973-1974*

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Box 10

*Published papers at SRI (6 of 7): 1973-1975*

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*Published papers at SRI (7 of 7): 1976-1977*

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*KRYPTON (1 of 3) 1982-1983*

Scope and Content Note


Box 10

*KRYPTON (2 of 3) 1982-1983*

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*KRYPTON (3 of 3) 1982-1983*

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*Odyssey: A Knowledge-Based Assistant Screen Prints and Screen Shots 1981*

Box 11

*Odyssey: A Knowledge-Based Assistant Drafts 1979-1980*

Box 11

*Odyssey: A Knowledge-Based Assistant Related Materials (1 of 2) 1978-1979*

Box 11

*Odyssey: A Knowledge-Based Assistant Related Materials (2 of 2) 1978-1979*

Box 11

*Bluebonnet: 8200 Lisp Interface (1 of 2) 1983*

Box 11

*Bluebonnet: 8200 Lisp Interface (2 of 2) 1983*

Box 12

*Enterprise (1 of 2) 1981*

Box 12

*Enterprise (2 of 2) 1981*

Box 13

*Some Preliminary Thoughts on Expert Office Systems, Forms, KRL1, etc. 1976-1978*

Box 12

*Personal Calendar System / Notes 1977-1980*

Box 12

*T-Box, Symbol Table, and Others 1980-1982*

Box 13

*Xerox Administrations 1976-1983*
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**Miscellaneous Activity in Xerox:**

**Scope and Content Note**


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**IntelliCorp Inc.**

Box 13  
**Publications at IntelliCorp.**

**Scope and Content Note**

- An Assertion and Retrieval Interface for a Frame-Based Representation system, 1985
- The Role of Frame-Based Representation in Reasoning, 1985
- Market-like Task Scheduling in Distributed Computing Environments, 1986

Box 13  
**Tools for Building Knowledge Systems: Representation and Acquisition 1985**

- KEE [Knowledge Engineering Environment] transparencies (1 of 5) 1986
- KEE [Knowledge Engineering Environment] transparencies (2 of 5) 1986
- KEE [Knowledge Engineering Environment] transparencies (3 of 5) 1986
- KEE [Knowledge Engineering Environment] transparencies (4 of 5) 1986
- KEE [Knowledge Engineering Environment] transparencies (5 of 5) 1986
- Frame Based Representation (1 of 3) 1985-1986
- Frame Based Representation (2 of 3) 1985-1986
- Frame Based Representation (3 of 3) 1985-1986
- DARPA [Defense Advanced Research Projects Agency] (1 of 2) 1987
- DARPA [Defense Advanced Research Projects Agency] (2 of 2) 1987
- Other Projects at IntelliCorp.

**Scope and Content Note**

- The Framer's Dilemma, n.d.

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**IntelliCorp. Corporate Presentations (1 of 2) 1983-1987**

Box 16  
**IntelliCorp. Corporate Presentations (2 of 2) 1983-1987**

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**Note Books 1983-1987**

Box 16  
**IntelliCorp. Admin. / Design Notes 1983-1987**

---

**Price Waterhouse Technology Centre**

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**Business Understonder Project (1 of 2) 1989**

Box 17  
**Business Understonder Project (2 of 2) 1989**

Box 17  
**Risk Assessment System (1 of 2) 1990**

Box 17  
**Risk Assessment System (2 of 2) 1990**

Box 17  
**Beyond the Current Plateau - Knowledge System Futures 1988**

Box 18  
**Modeling and Analyzing Businesses: A High Payoff Challenge for AI 1990**

Box 18  
**Knowledge-Based Systems Program, n.d.**

Box 18  
**Using New technologies in Auditing 1990**

Box 18  
**Estimating Project Cost 1990**

Box 18  

Box 19  
**Other Projects at Price Waterhouse**

**Scope and Content Note**

Diagnostic Reasoning Template - Coherent Thought 1989

Overseas Trips (Price Waterhouse): 1988-1989
  Scope and Content Note
  Australia Trip, 1989 / Japan AI Study, 1988 / Hong Kong Talk, 1988

Note Books, n.d.

Expenses / Budgets / Timesheets / Hiring / Workstation Purchase Request 1987-1991

Miscellaneous activity at Price Waterhouse:
  Scope and Content Note

YY Software Corp. Board of Advisors Meetings 1998-1999

Knowledge Systems Laboratory

KSL Overview Slides 1991

Research papers (1 of 2)
  Scope and Content Note

Research papers (2 of 2)
  Scope and Content Note

US ARL Federated Laboratory Proposal “Red Team Review” (1 of 2) 1995
US ARL Federated Laboratory Proposal “Red Team Review” (2 of 2) 1995
DME [Device Modeling Environment], n.d.
Model-Enabled Control of Reconfigurable Hybrid Systems 1998
SIMNET Network and Protocols 1991
SMART [System for Manufacturing Using Advanced Representation Technology], (1 of 4) 1993-1994
SMART [System for Manufacturing Using Advanced Representation Technology], (2 of 4) 1993-1994
SMART [System for Manufacturing Using Advanced Representation Technology], (3 of 4)
SMART [System for Manufacturing Using Advanced Representation Technology], (4 of 4) 1993-1994
MADE [Manufacturing Automation and Design Engineering] (1 of 3) 1993-1994
| Box 25 | MADE [Manufacturing Automation and Design Engineering] (2 of 3) |
| Box 25 | MADE [Manufacturing Automation and Design Engineering] (3 of 3) 1993-1994 |
| Box 25 | “Knowledge-Assisted Software Engineering (KASE) and Development of a KASE Environment” 1992 |
| Box 25 | Novell Intelligence from Semi-Structured Knowledge 2002-2006 |
| Box 26 | NIE [National-Scale Information Enterprises], n.d. |
| Box 27 | How Things Work (project details, email correspondence, presentations, financials, supporting documents) (1 of 3) 1993-1994 |
| Box 27 | How Things Work (project details, email correspondence, presentations, financials, supporting documents) (2 of 3) 1991-1994 |
| Box 27 | How Things Work (project details, email correspondence, presentations, financials, supporting documents) (3 of 3) 1991-1994 |
| Box 27 | HPKB (project information, presentations, papers) 1994 |
| Box 31 | KDI [Knowledge and Distribution Intelligence] 1998 |
| Box 26 | Other Projects in Stanford (1 of 8) |
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| | Explainable Knowledge Aggregation from Multiple Heterogeneous Information Sources, 2004 / Explainable Integrated Learning Proposal, n.d. / Ultra*long, 2000 |
| Box 26 | Other Projects in Stanford (2 of 8) |
| | Scope and Content Note |
| | Real-World Hybrid Reasoning with Large-Scale Heterogeneous Knowledge Bases, 2004 / Shared Knowledge Representation Language, 1992 |
| Box 26 | Other Projects in Stanford (3 of 8) |
| | Scope and Content Note |
| | KANI [Knowledge Associates for Novell Intelligence], 2004 / NIMD [Novel Intelligence for Massive Data], 2002 / Global Knowledge Network Project, 2002 |
| Box 26 | Other Projects in Stanford (4 of 8) |
| | Scope and Content Note |
| Box 26 | Other Projects in Stanford (5 of 8) |
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| | Scope and Content Note |
| Box 31 | Other Projects in Stanford (7 of 8): 1999-2001 |
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Box 31  Other Projects in Stanford (8 of 8): 1992, 1995
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Box 27  Proposal of Collaboration with KSL, n.d.

Teaching and Administration

Box 21  Stanford Teaching CS106, Examination, Problems, computer program listings 1970
Box 21  Stanford Teaching CS105.2, computer program listings, handouts 1973
Box 21  Stanford Teaching CS105, computer program listings 1973
Box 20  CS 222 Lecture Presentation Slides (1 of 2) 1997
Box 20  CS 222 Lecture Presentation Slides (2 of 2) 1997
Box 20  CS 222 Lecture Presentation Slides (1 of 4) 1998
Box 20  CS 222 Lecture Presentation Slides (2 of 4) 1998
Box 20  CS 222 Lecture Presentation Slides (3 of 4) 1998
Box 20  CS 222 Lecture Presentation Slides (4 of 4) 1998
Box 21  CS 222 World Fact Book Project 1997
Box 31  Teaching Evaluations 1997-2004
Box 21  PhD Qualifying Examination 1997
Box 21  Stanford Administrations (1 of 3):
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Box 21  Stanford Administrations (2 of 3):
Scope and Content Note

Box 31  Stanford Administrations (3 of 3):
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Job Applications (1992, 2006) / Resignation Notices

Series 5 Professional Organization Activity

Box 13  Conference on Office Information Systems, 1982
Box 28  AAAI-86 Tutorial Materials [American Association for Artificial Intelligence] (1 of 3) 1986
Box 28  AAAI-86 Tutorial Materials [American Association for Artificial Intelligence] (2 of 3) 1986
Box 28  AAAI-86 Tutorial Materials [American Association for Artificial Intelligence] (3 of 3) 1986
Box 28  AAAI Spring Symposium Series, papers, correspondence, etc. (1 of 2) 1989
Box 28  AAAI Spring Symposium Series, papers, correspondence, etc. (2 of 2) 1989
| Box 29 | IJCAI [International Joint Conferences on Artificial Intelligence], Conference papers (1 of 4) 1989 |
| Box 29 | IJCAI [International Joint Conferences on Artificial Intelligence], Conference papers (2 of 4) 1989 |
| Box 29 | IJCAI [International Joint Conferences on Artificial Intelligence], Conference papers (3 of 4) 1989 |
| Box 29 | IJCAI [International Joint Conferences on Artificial Intelligence], Conference papers (4 of 4) 1989 |
| Box 30 | Second International Conference on Principles of Knowledge Representation KR ’91 (1 of 2) (correspondence, conference paper, paper reviews) 1991 |
| Box 30 | Second International Conference on Principles of Knowledge Representation KR ’91 (2 of 2) (correspondence, conference paper, paper reviews) 1991 |
| Box 30 | AAAI 1987 / DARPA Planning Workshop 1987 (presentations, draft presentations, etc.) 1987 |
| Box 28 | Other Conferences, symposiums, forums and workshops (correspondence, programs, and presentations) (1 of 3): |
| | Scope and Content Note |
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| | Scope and Content Note |
| Box 30 | Other Conferences, symposiums, forums and workshops (correspondence, programs, and presentations) (3 of 3): |
| | Scope and Content Note |

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| Box 32 | Slides |
| | Scope and Content Note |
| Box 32 | Photographs |
| Box 32 | IBM Flowcharting Template |
| Box 32 | Floppy disks (3 1/2") |
| | Physical Description: 50 computer media |
| Box 32 | 32.1 Bluebonnet: An Expert Help System, CSDG talk 1982 Nov 23 |
| | Physical Description: 1 audiocassette(s) |
| Box 32 | 32.2 Richard Fikes and Austin henderson, Klone/CSDG Talk 1980 Jul 22 |
| | Physical Description: 1 audiocassette(s) |
| Box 32 | 32.3 Artificial Intelligence Undated |
| | Physical Description: 1 audiocassette(s) |
Box 32

32.4 **Software Architecture Undated**

Physical Description: 1 audiocassette(s)

Box 33

**Photographs and transparencies:**

Scope and Content Note

13 (12 inch. X 10 inch.) photographs (A Commitment-Based Model of Office Work for Expert Office System, 1982) 7 transparencies (Building Knowledge-Based Systems) 19 transparencies (The Monkey Problem, etc.)

Series 7 **Miscellaneous material**

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Name Cards

Box 34


Box 31

Address & Phone Directories / Pocket Day-Timer Notes

Series 8 **Computer files**

**Email 1997-2007**

1991 emails 1991

Language of Material: English

1992 emails 1992

Language of Material: English

1993 emails
1994 emails 1994
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1997 emails 1997
1998 emails 1998

**Private Sector**

Test 1991

Acuitus - Acuitus develops computer-based tutoring systems.

TomAndAndy

AF Rome

CelCorp

IKRIS

AdIn

Bradshaw

CNRI

iSpring

JonesDay

HAR

Meanings

TPIN Number_files

Woodside Labs

Yahoo!

YY Software

**Stanford University**

Teaching and Administration
CS222- Knowledge Representation. Lecture presentations, projects, examinations. 1997-2004

Scope and Content Note

Folder: C:\Documents and Settings\pchan3\Desktop\Fikes\Series 3 Stanford University\Teaching and Administration\CS222, FILE 216,118 airport.pdf 6/24/2008 15:25 FILE 162,008 airport.ps 6/27/2002 11:22

1997
1998
2000
2001
2002
2003
2004

CS Department
AI Qual
Gates - Office Space
ISYS - The Intelligent Systems Laboratory
MSCS Advising
MSCS Admissions
PhD Admissions
Ron Brachman
Seibel PhD Fellowship
Miscellaneous

Annual Faculty Reports 1998-2005
Professor (Research) Reappointment files
Retirement - Files related to Fikes' retirement
Students' CV, thesis, etc.
Miscellaneous

Knowledge Systems Laboratory
Finances - Lab Budgets, Financial Analysis, etc.
KSL Seminar
Management - Performance Appraisals, Recruitments, Personnel Matters, Work Distributions, etc.

Projects
How Things Work
KD-D
KnOWS

KSL with other Corporations and Agencies
Agnosco
Cisco
CTC
IBM
NASA
NSA
PARC
Sony
VerticalNet

Projects from Funding Agencies
ARDA
AQUAINST
NIMD
IKRIS
CASE
Darpa
Aggregation
Cognitive Systems
HTW
IAO
IPTO
ISAT
ISO_Panel
ISO_Simulation
ITE
Programs
ASSIST
CALO
DAML
EELD
HPKB
I3
Info_Brokers_Project
REAL
RKF
UltraLog
SBD
SEC
Strategic Knowledge Bank
Miscellaneous
DHS
ERC
Livermore Labs
NSF
Vulcan
Technologies
Agents
GlobalInfoBase
Inference Web
JTP
Knowledge Sharing
Ontologies
TAP
UIMA
Talks
Agnosco
AQUAIN T
Brokers
DHS Text Analysis Workshop
HTW
I3
Integration
ISAT
KD-D
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KR&R
KSL
MARS
NASA
OKBC
Pfizer_Visit
REAL
Semantic Web
SHADE
Spring Symposia
UltraLog
Miscellaneous
Miscellaneous

Professional Organization Activity

AAAI Admin
Professional Meetings
  ISWC
  KR
  OKBC
  QAS
DARPA IPTO REAL-Gambit Workshop 2002 Nov 18-20