Michael Genesereth
Associate Professor of Computer Science

CONTACT INFORMATION
• Administrator
  Prachi Balaji - Administrative Associate
  Email  pbalaji@stanford.edu
  Tel  (650) 725-3358

Bio

BIO
Genesereth is best known for his work on computational logic and applications of that work in enterprise management and electronic commerce. Basic research interests include knowledge representation, automated reasoning, and rational action. Current projects include logical spreadsheets, data, and service integration on the World Wide Web, and computational law.

ACADEMIC APPOINTMENTS
• Associate Professor, Computer Science

PROGRAM AFFILIATIONS
• Symbolic Systems Program

PROFESSIONAL EDUCATION
• PhD, Harvard University (1978)

LINKS
• http://logic.stanford.edu/people/genesereth: http://logic.stanford.edu/people/genesereth

Teaching

COURSES
2018-19
• Computational Logic: CS 157 (Aut)
• General Game Playing: CS 227B (Spr)
• Legal Informatics: CS 204 (Spr)
• Legal Informatics: LAW 4019 (Spr)
• Logic Programming: CS 151 (Spr)

2017-18
• General Game Playing: CS 227B (Spr)
• Legal Informatics: CS 204 (Spr)
• Legal Informatics: LAW 4019 (Spr)
• Logic and Automated Reasoning: CS 157 (Aut)

2016-17
• General Game Playing: CS 227B (Spr)
• Legal Informatics: CS 204 (Spr)
• Legal Informatics: LAW 4019 (Spr)
• Logic and Automated Reasoning: CS 157 (Aut)

2015-16
• General Game Playing: CS 227B (Spr)
• Logic and Automated Reasoning: CS 157 (Aut)

STANFORD ADVISEES
Master's Program Advisor
Teresa Noyola

Publications
PUBLICATIONS

• Multi-Vendor Catalogs: Smart Catalogs and Virtual Catalogs
  Keller, A., M., Genesereth, M., R.

• Data Integration - The Relational Logic Approach
  Genesereth, M., R.
  Morgan-Claypool.2010

• Computational Law
  Love, N., Genesereth, M., R.
  2005

• Axiom Schemata as Metalevel Axioms: Model Theory
  Hinrichs, T., L., Genesereth, M., R.
  2005

• PrediCalc: A Logical Spreadsheet Management System
  Kassoff, M., Zen, L., Garg, A., Genesereth, M., R.
  2005

• Database Reformulation with Integrity Constraints
  Chirkova, R., Genesereth, M., R.
  2005

• General Game Playing - Overview of the AAAI Competition AAAI Magazine
  Genesereth, M., R., Love, N., Peli, B.
  2005; 26 (2)

• Linearly Bounded Reformulations of Unary Databases
  Chirkova, R., Genesereth, M., R.
  2000
• Linearly Bounded Reformulations of Conjunctive Databases
  Chirkova, R., Genesereth, M., R.
  2000

• Database Reformulation
  Chirkova, R., Genesereth, M., R.
  1998

• Dervish in AI-based Mobile Robots: Case Studies of Successful Robot Systems
  Nourbakhsh, I., Genesereth, M., R.
  edited by Kortenkamp, D., Bonasso, P., Murphy, R.
  MIT Press.1998: 1

• Query Planning with Disjunctive Sources
  Duschka, O., Genesereth, M., R.
  1998

• Teaching AI Using Robots in AI-based Mobile Robots: Case Studies of Successful Robot Systems
  Nourbakhsh, I., Genesereth, M., R.
  edited by Kortenkamp, D., Bonasso, P., Murphy, R.
  MIT Press.1998: 1

• Using Infomaster to Create a Housewares Virtual Catalog Journal of Electronic Markets, Institute for Media and Communication Management, University of St. Gallen, Switzerland
  Keller, A., M., Genesereth, M., R.
  1997; 7 (4): 41-45

• Proceedings of the Sixth International World Wide Web Conference
  edited by Genesereth, M., R., Patterson, A.
  Elsevier.1997

• Abstraction in Planning and Execution Logic Group, Stanford University Computer Science Department
  Nourbakhsh, I., Genesereth, M., R.
  1997

• Infomaster - An Information Integration Tool
  Duschka, O., Genesereth, M., R.
  1997

• Infomaster: An Information Integration System
  Genesereth, M., R., Keller, A., M., Duschka, O.
  1997

• Answering Recursive Queries Using Views
  Duschka, O., Genesereth, M., R.
  1997

• Query Planning in Infomaster
  Duschka, O., Genesereth, M., R.
  1997

• An Agent-Based Framework for Interoperability in Software Agents
  Genesereth, M., R.
  edited by Bradshaw, J.
  AAAI Press.1997: 1

• Assumptive Planning and Execution: A Simple Working Robot Architecture, Autonomous Robots
  Nourbakhsh, I., Genesereth, M., R.
  1996; 3: 49-67
Stanford Information Network Logic Group, Stanford University Computer Science Department
Genesereth, M., R., Keller, M., A., Mueller, G., C.
1996

Concurrent Engineering through Interoperable Software Agents
Khedro, T., Genesereth, M., R., Teicholz, P.
1994

A Framework for Collaborative Distributed Facility Engineering
Khedro, T., Genesereth, M., R., Teicholz, P.
1994

Modeling Multiagent Cooperation as Distributed Constraint Satisfaction Problem Solving
Khedro, T., Genesereth, M., R.
1994

Solution Consistency and Convergence in Cooperative Distributed Problem Solving
Khedro, T., Genesereth, M., R.
1994

Single Phase Agreements Among Rational Agents in Journal of Experimental and Theoretical Artificial Intelligence
Rosenschein, J., S., Genesereth, M., R.
1993

From Dart to Designworld: A Chronicle of Research on Automated Engineering in The Stanford Logic Group Artificial Intelligence, to appear
Genesereth, M., R.
1993

Agent-Based Technology for Facility Design Software Integration
Khedro, T., Teicholz, P., M., Genesereth, M., R.
1993

A Formal Approach to Interdisciplinary Communication of Facility Design Information International Journal for Artificial Intelligence in Engineering
Khedro, T., Teicholz, P., M., Genesereth, M., R.
1993

Collaborative Distributed Facility Engineering Through Agent-Based Software Integration
Khedro, T., Genesereth, M., R.
1993

Time-Saving Tips for Problem Solving with Incomplete Information
Genesereth, M., R., Nourbakhsh, I.
1993

PACT: An Experiment in Integrating Concurrent Engineering Systems Computer
Cutkosky, M., Engelmore, R., S., Fikes, R., E., Genesereth, M., R., Gruber, T., R., Mark, W., S.

Progressive Negotiation: A Strategy for Resolving Conflicts in Cooperative Distributed Multidisciplinary Design
Khedro, T., Genesereth, M., R.
1993

FCDA: A Framework for Collaborative Distributed Multidisciplinary Design
Khedro, T., Genesereth, M., R., Teicholz, P., M.
1993

An Agent-Based Framework for Integrated Facility Engineering International Journal for Engineering with Computers
Khedro, T., Genesereth, M., R., Teicholz, P., M.
1993; 9: 94-107
• An Agent-Based Approach for Integrated Design Environments
  Khedro, T., Genesereth, M., R., Teicholz, P., M.
  1992

• Agent-Based Concurrent Engineering
  Genesereth, M., R., Huyn, P., Letsinger, R.
  1992

• Partial Programs
  Genesereth, M., R., Hsu, J., Y.
  edited by Allen, J., Fikes, R., Sandewall, E.
  1991

• A Comparative Analysis of Some Simple Architectures for Autonomous Agents Architectures for Cognition
  Genesereth, M., R.
  edited by vanLehn, K., Erlbaum, L.
  1991: 279–300

• Designworld
  Genesereth, M., R.
  1991

• A Fast Algorithm for Automatic Theorem Proving with Equality Logic-91-2, Stanford University Computer Science Department
  Sikka, V., Genesereth, M., R., Singh, N.
  1991

• Knowledge Interchange Format
  Genesereth, M., R.
  edited by Allen, J., Fikes, R., Sandewall, E.
  1991

• Epikit: A Library of Subroutines Supporting Declarative Representation and Reasoning
  Singh, N., P., Genesereth, M., R.
  1991

• Discrete Systems Theory Logic-89-6, Stanford University Computer Science Department
  Genesereth, M., R.
  1989

• Deals Among Rational Agents in The Ecology of Computation
  Rosenschein, J., S., Genesereth, M., R.
  edited by Huberman, B., A.

• Choosing Directions for Rules Journal of Automated Reasoning
  Treitel, R., Genesereth, M., R
  1987: 395-431

• Introspective Fidelity in Metalevel Architectures and Reflection
  Genesereth, M., R.
  edited by Maes, P.
  North-Holland.1987: 75–85

• Logical Foundations of Artificial Intelligence
  Genesereth, M., R., Nilsson, N., J.
  Morgan-Kaufman.1987

• The Relevance of Irrelevance
  Subramanian, D., Genesereth, M., R.
• Communication and Cooperation  
  Rosenschein, J., S., Genesereth, M., R.  
  1987

• Cooperation Without Communication  
  Genesereth, M., R., Ginsberg, M., L., Rosenschein, J., S.  
  1986

• Choosing Directions for Rules  
  Treitel, R., Genesereth, M., R.  
  1986

• Ordering Conjuncts in Problem Solving Artificial Intelligence  
  Smith, D., E., Genesereth, M., R.  
  1985; 26 (2): 171-216

• Deals Among Rational Agents  
  Rosenschein, J., S., Genesereth, M., R.  
  1985

• A Variable Supply Model for Distributing Deductions Journal of Parallel and Distributed Computing  
  Singh, V., Genesereth, M., R.  
  1985

• A Variable Supply Model for Distributing Deductions  
  Singh, V., Genesereth, M., R.  
  1985

• PM: A Parallel Execution Model for Backward Chaining Deductions Future Computing Systems  
  Singh, V., Genesereth, M., R.  
  1985

• Expressiveness and Language Choice Data and Knowledge Engineering  
  Mackinlay, J., Genesereth, M., R.  
  1985; 1 (1): 17-29

• Choosing Directions for Rules KSL-85-46, Stanford University Heuristic Programming Project  
  Trietel, R., Genesereth, M., R.  
  1985

• Procedural Hints in the Control of Reasoning HPP-84-11, Stanford University Heuristic Programming Project  
  Genesereth, M., R., Smith, D., E.  
  1984

• The Use of Hierarchical Design Models in the Automated Diagnosis of Computer Systems in Qualitative Reasoning about Physical Systems  
  Genesereth, M., R.  
  edited by Bobrow, D.  

• Solving the Prisoner's Dilemma STAN-CS-84-1032, Stanford University Computer Science Department  
  Genesereth, M., R., Ginsberg, M., L., Rosenschein, J., S.  
  1984

• The Role of Abstractions in Understanding Analogies HPP-84-8, Stanford University Heuristic Programming Project  
  Greiner, R., Genesereth, M., R.:  
  1984

• Expressiveness of Languages  
  Mackinlay, J., Genesereth, M., R.
1984

- **An Overview of Meta-Level Architecture**
  Genesereth, M., R., Smith, D., E.
  1983

- **What’s New: A Semantic Definition of Novelty**
  Greiner, R., Genesereth, M., R.
  1983

- **Residue: A Deductive Approach to Design** *HPP-83-46, Stanford University Heuristic Programming Project*
  Finger, J., J., Genesereth, M., R.
  1983

- **Meta-Cognition: Reasoning about Knowledge in Expert Systems**
  Davis, R., Doyle, J., Genesereth, M., R., Goldstein, I., Lenat, D., Shrobe, H.
  edited by Hayes-Roth, F., Lenat, D., Waterman, D.
  1982: 219–240

- **The Use of Hierarchical Design Models in the Automated Diagnosis of Computer Systems**
  Genesereth, M., R.
  1982

- **Artificial Intelligence Techniques in Macsyma in AI Handbook**
  Genesereth, M., R.
  edited by Feigenbaum, E., Barr, A.
  Morgan-Kaufmann.1981: 143–149

- **The Role of Plans in Intelligent Teaching Systems in Intelligent Teaching Systems**
  Genesereth, M., R.
  edited by Sleeman, D., Brown, J., S

- **Why** *HPP-80-19, Stanford University Heuristic Programming Project*
  Genesereth, M., R.
  1980

- **Metaphors and Models**
  Genesereth, M., R.
  1980

- **Metaphors and Models** *HPP-80-20, Stanford University Heuristic Programming Project*
  Genesereth, M., R.
  1980

- **The Use of Semantics in a Tablet-Based Program for Selecting Parts of Mathematical Expressions**
  Genesereth, M., R.
  1979

- **The Advanced Scientific Computing Environment Project**
  1979

- **Automated Consultation for Complex Computer Systems**
  Genesereth, M., R.
  1979

- **The Canonicality of Rule Systems**
  Genesereth, M., R.
  1979
• The Difficulties of Using Macsyma and the Functions of User Aids
  Genesereth, M., R.
  1977

• A Fast Inference Algorithm for Semantic Networks Memo, M.I.T. Mathlab Group
  Genesereth, M., R
  1977