

## Computer Science Faculty

**Dr. Stephen Beale**, *Research Assistant Professor*

Syntactic and semantic analysis and synthesis of texts, control architectures for complex NLP processors, integration of large, multi-engine NLP applications

**Dr. Richard Chang**, *Associate Professor*

Computational complexity theory, structural complexity, analysis of algorithms

**Dr. Marie desJardins**, *Professor*

Machine learning, intelligent planning and scheduling, multiagent systems, artificial intelligence, adaptive tutoring

**Dr. Timothy Finin**, *Professor*

Artificial intelligence, knowledge representation and reasoning, knowledge and database systems, natural language processing, intelligent agents

**Dr. Milton Halem**, *Research Professor*

Scientific computing, high performance computing, distributed and parallel computing

**Dr. Anupam Joshi**, *Professor*

Networked/distributed and mobile computing, data/web mining, multimedia databases, computational intelligence and multi-agent systems, scientific computing

**Dr. Konstantinos Kalpakis**, *Associate Professor*

Digital libraries, electronic commerce, databases, multimedia, parallel and distributed computing, and combinatorial optimization

**Dr. Hillol Kargupta**, *Professor*

Distributed and ubiquitous data mining, gene expression, genetic algorithms and evolutionary systems, intelligent agent based software systems, artificial intelligence, biological models of computation, optimization

**Dr. Samuel J. Lomonaco**, *Professor*

Quantum computation, algebraic coding theory, cryptography, numerical and symbolic computation, analysis of algorithms, applications of topology to physics, knot theory and 3-manifolds, algebraic and differential topology, differential geometry, Lie groups

**Dr. Marjorie J. McShane**, *Research Assistant Professor*

Computationally tractable descriptions of language phenomena, reference and ellipsis cross-linguistically and in natural language processing, machine translation, computational semantics, machine guided knowledge elicitation

**Dr. Charles K. Nicholas**, *Professor*

Electronic document processing, software engineering, and intelligent information systems

**Dr. Sergei Nirenburg**, *Professor*

Natural language processing, artificial intelligence, knowledge-based systems, machine translation, ontological semantics, computational linguistics

**Dr. James T. Oates**, *Associate Professor*

Artificial intelligence, machine learning, robotics, and natural language processing

**Dr. Marc Olano**, *Associate Professor*

Software and hardware for interactive computer graphics, procedural shading, realistic and non-realistic rendering

**Dr. Yun Peng**, *Professor*

Artificial intelligence, neural network computing, and medical applications

**Dr. Dhananjay Phatak**, *Associate Professor*

Computer networks, computer arithmetic algorithms and VLSI implementations, network security, neural networks, digital and analog VLSI design and CAD

**Dr. Penny Rheingans**, *Professor*

Visualization of data with potential uncertainty, multivariate visualization, dynamic interaction, computer graphics and animation, and the application of perceptual principles to computer graphics and visualization

**Dr. Janet Rutledge**, *Associate Professor*

Modeling and compensating for the effects of sensorineural hearing loss and other communication disorders

**Dr. Alan T. Sherman**, *Associate Professor*

Discrete algorithms, cryptology, VLSI layout algorithms

**Dr. Deepinder P. Sidhu**, *Professor*

Computer networks, distributed systems, distributed and heterogeneous databases, parallel and distributed algorithms, computer and communication security, distributed artificial intelligence, high-performance computing

**Dr. Brooke Stephens**, *Associate Professor*

Numerical analysis, combinatorics, resource allocation, optimization

**Dr. Yaacov Yesha**, *Professor*

Parallel computing, computational complexity, algorithms, source coding, speech and image compression

**Dr. Yelena Yesha**, *Professor*

Distributed systems, database systems, digital libraries, electronic commerce, performance modeling, design tools for optimizing availability in replicated database systems, efficient and highly fault tolerant mutual exclusion algorithms, and analytical performance models for distributed and parallel systems

**Dr. Mohamed Younis**, *Associate Professor*

Wireless networks, distributed real-time systems, fault tolerant computing, compilerbased analysis, embedded operating systems