George Thomas

| CONTACT INFORMATION | 218 Halsey Science, Computer Science Department University of Wisconsin Oshkosh, WI 54901 | *Tel:* 920-424-2069 *E-mail:* `thomasg@uwosh.edu` |

RESEARCH INTERESTS

Artificial Intelligence, with focus on Coordination, Task Allocation and Market-based mechanisms in Multiagent Systems; Machine Learning and Natural Language Processing; Computer Science Education

EDUCATION

University of Iowa, Iowa City, IA   2001-2009
Ph.D., Computer Science
- Dissertation: *"Heterogeneous Task Allocation and Team Design in Multiagent Routing Domains."*
Advisor: Andrew B. Williams

University of Iowa, Iowa City, IA   1996-1997
M.S., Computer Science

University of Kerala, Trivandrum, India   1990-1994
B.Tech., Computer Science & Engineering

PROFESSIONAL EXPERIENCE

Computer Science Department, University of Wisconsin Oshkosh

Chair, Computer Science Department	July 2019 - Present
Academic Director, M.S. in Cybersecurity program	July 2019 - Present
Interim Chair, Computer Science Department	July 2018 - June 2019
Associate Professor	Fall 2016 - Present
Assistant Professor	Fall 2010 - Spring 2016
Lecturer	Fall 2009 - Spring 2010

New Products Engineering, Stockpoint Inc, Coralville, IA

Lead Software Engineer	August 2000 - September 2001
Software Engineer	February 1998 - July 2000

ACADEMIC EXPERIENCE

Instructor, University of Wisconsin Oshkosh

- CS 115: Using Computers
- CS 125: Web Site Design
- CS 142: Elementary Programming in Visual Basic
- CS 142: Introduction to Computer Science and Programming
- CS 221: Object Oriented Design and Programming I
- CS 251: Computer Organization and Assembly Language
- CS 262: Object Oriented Design and Programming II

- CS 271: Data Structures
- CS 300: Artificial Intelligence
- CS 341: Software Engineering I
- CS 342: Software Engineering II
- CS 346: Web Development
- CS 361: Databases
- CS 371: Computer Graphics
- CS 391: Data Communication and Computer Networks
- CS 399: Internship in Computer Science
- CS 421: Operating Systems
- CS 490: Practicum in Computer Science

Instructor, Dept. of Computer Science, University of Iowa
- Programming with Java
- Programming with C

RESEARCH EXPERIENCE

Dept. of Electrical & Computer Engg., University of Iowa

Research Assistant   **Summer 2002 - Fall 2006**
Research on Ontology Creation and Analysis for Age-Related Macular Degeneration: Helped implement IDOCS System, with duties that included system design, collaboration with medical experts, data gathering, machine learning and analysis of results, and dissemination of results.

PUBLICATIONS

George Thomas, "An Optimal Algorithm for Dynamic Heterogeneous Team Restructuring in Budget Constrained Domains", In *Journal of Computing Sciences in Colleges*, 31(5), May 2016, 62-69.

George Thomas, Matthew Zahm and David Furcy, "Using a Sentence Compression Pipeline for the Summarization of Email Threads in an Archive", In *Journal of Computing Sciences in Colleges*, 31(2), December 2015, 72-78.

George Thomas, "Towards Dynamic Heterogeneous Team Restructuring in Task Allocation Domains", In *Journal of Computing Sciences in Colleges*, 30(5), May 2015, 153-159.

David Furcy and **George Thomas**, "Designing Effective Heterogeneous Teams for Multiagent Routing Domains", In *Tenth IEEE/WIC/ACM International Conference on Intelligent Agent Technology* (IAT), Lyon, France, August 22-27, 2011.

George Thomas and Andrew B. Williams, "Sequential Auctions for Heterogeneous Task Allocation in Multiagent Routing Domains", In *2009 IEEE International Conference on Systems, Man, and Cybernetics* (SMC), October 11-14, 2009.

George Thomas and Andrew B. Williams, "Empirical Evaluation of Factors Affecting Heterogeneous Task Allocation", In *Twentieth Midwest Artificial Intelligence and Cognitive Science Conference* (MAICS), April 18-19, 2009.

George Thomas, Michael A. Grassi, John R. Lee, Albert O. Edwards, Michael B. Gorin, Ronald Klein, Thomas L. Casavant, Todd E. Scheetz, Edwin M. Stone, and

Andrew B. Williams, "IDOCS: Intelligent Distributed Ontology Consensus System - The Use of Machine Learning in Retinal Drusen Phenotyping" In *Investigative Ophthalmology and Visual Sciences* (IOVS), 48(5), May 2007, 2278-2284.

Tasha R. Inniss, Marc Light, **George Thomas**, John R. Lee, Michael A. Grassi and Andrew B. Williams, "Towards Applying Text Mining and Natural Language Processing for Biomedical Ontology Acquisition", In *ACM First International Workshop on Text Mining in Bioinformatics* (TMBIO) November 10, 2006.

George Thomas and Andrew B. Williams, "Allocating Heterogeneous Tasks to Heterogeneous Robot Teams", In *AAAI Workshop on Auction Mechanisms for Robot Coordination*, pages 80-85, Boston, Massachusetts, July 17, 2006.

Andrew B. Williams, **George Thomas**, Michael A. Grassi and John R. Lee, "IDOCS: Collaboratively Describing and Classifying the Features of AMD with Machine Learning", *Invest Ophthalmol Vis Sci.* 2006;47:ARVO E-Abstract 2096/B675. Florida, USA. April 30-May 4, 2006.

George Thomas and Andrew B. Williams, "Roles in the Context of Multiagent Task Relationships", In *AAAI Fall Symposium on Roles*, An Interdisciplinary Perspective, Arlington, Virginia, November 4-6, 2005.

George Thomas, Ayanna M. Howard, Andrew B. Williams, and Aryen Moore-Alston, "Multi-Robot Task Allocation in Lunar Mission Construction Scenarios", In *Proc. IEEE Intl. Conf. on Systems, Man and Cybernetics*, Hawaii, USA, October 10-12 2005.

Andrew B. Williams, Todd Krygowski and **George Thomas**, "Using Agents to Reach an Ontology Consensus", In *First International Conference on Autonomous Agents and Multi-Agent Systems*, July 15-19, Bologna, Italy, 2002.

FELLOWSHIPS & AWARDS

2017 Edward Penson Faculty Award.
2007 Graduate College Summer Fellowship.
2006-2007 Computer Science Outstanding Teaching Assistant Award.
2005-2006 Graduate College Travel Awards.
2005 AAAI Travel Award.

TALKS AND PRESENTATIONS

CCSC-Mid South Conference 2016, Memphis, Tennessee. Presented paper "An Optimal Algorithm for Dynamic Heterogeneous Team Restructuring in Budget Constrained Domains".

CCSC-Central Plains Conference 2015, Branson, Missouri. Presented paper "Towards Dynamic Heterogeneous Team Restructuring in Task Allocation Domains".

CCSC-Rocky Mountains Conference 2015, Cedar City, Utah. Presented paper "Using a Sentence Compression Pipeline for the Summarization of Email Threads"

IAT Conference 2011, Lyon, France, August 22-27, 2011. Presented paper "Designing Effective Heterogeneous Teams for Multiagent Routing Domains".

MAICS Conference 2009, Fort Wayne, Indiana, April 18-19, 2009. Presented paper "Empirical Evaluation of Factors Affecting Heterogeneous Task Allocation".

AAAI 2006 Workshop on Auction Mechanisms for Robot Coordination in Boston, Massachussetts, July 17, 2006. Presented paper "Allocating Heterogeneous Tasks to Heterogeneous Robot Teams".

AAAI Fall Symposium on Roles, An Interdisciplinary Perspective, Arlington, Virginia, November 6, 2005. Presented paper "Roles in the Context of Multiagent Task Relationships".

SERVICE &
MEMBERSHIPS

Department, College and University Service

- Member of the department assessment, curriculum, web and social media, and scholarship committees
- Member of the ADA and Faculty Search and screen committees
- Member of the COLS Tenure and Renewal, and Faculty committees
- Academic Director, M.S. in Cybersecurity program, 2019-Present
- Member, Graduate Council

Professional and Community Service & Memberships

- Member of ACM and SIGCSE.
- External Tenure Reviewer for Dr. Zaid Altahat, Computer Science, University of Wisconsin Parkside, January 2021
- Reviewer for EAAI 2016-2021
- Reviewer for SIGCSE 2018-2021
- Reviewer for CCSC-RM 2015
- Reviewer for Journal *Software: Practice and Experience*
- IRS Volunteer Income Tax Assistance(VITA) Program volunteer, 2001-2009