

Biographical Sketch

Hasan Davulcu

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Education

State University of New York, Stonybrook, Ph.D, 2002.

State University of New York, Stonybrook, M.S., 1995.

Middle East Technical University, Turkey, B.S. 1993.

Appointments

Assistant Professor, Computer Science and Engineering, Arizona State University

Prior to ASU, Davulcu performed research and development in intelligent Web agent technologies at a technology start-up.

Research

Developing Novel Data Mining Techniques For Structuring And Organizing Unstructured Sources

Principal Areas of Teaching and Research

Davulcu's main research interest is using ontology-directed data mining techniques for structuring and organizing unstructured data, such as Web, text documents and gene sequences. Semantic Web enables information to be machine processable so that machines can distinguish between words and meanings and "do the right thing" with the data on the Web. Davulcu's research focuses on (i) mining ontologies from Web documents, (ii) ontology-directed annotation of web sources, (iii) enriching and maintaining ontologies and (iv) techniques for merging ontologies to achieve information integration. This ontology-directed Web mining approach enables rapid creation of domain-specific search engines and extraction of structured and organized knowledge bases from heterogeneous documents and data sources. One current project aims to establish a Toxin Knowledge Base, a resource for the fight against bioterrorism.

Honors and Distinctions

- U.S. Army Medical Research Institute of Infectious Disease and Department of Defense grant, "A System for Discovering Bioengineered Threats by Knowledge Base Driven Mining of Toxin Data" (subcontract from BNL), 2003-2005

Selected Publications

H. Davulcu, S. Vadrevu, S. Nagarajan, and I.V. Ramakrishnan, "OntoMiner: Bootstrapping and Populating Ontologies From Domain Specific Web Sites," IEEE Intelligent Systems, vol. 18, no. 5, Sept./Oct. 2003, pp. 24-33.

H. Davulcu, S. Mukherjee, and I.V. Ramakrishnan, "Extraction Techniques for Mining Services from Web Sources," Proc. 2002 IEEE Int'l. Conf. on Data Mining (ICDM 2002), IEEE CS Press, 2002, pp. 601-604.

H. Davulcu, G. Yang, M. Kifer, and I.V. Ramakrishnan, "Computational Aspects of Resilient Data Extraction from Semistructured Sources," ACM Symp. on Principles of Database Systems (PODS 2000), ACM Press, 2000, pp. 136-144.

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