

Turgay Yılmaz

CONTACT INFORMATION

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RESEARCH INTERESTS

Multimedia databases, information fusion, intelligent systems, fuzzy systems, machine learning, evolutionary computation, soft computing

EDUCATION

Ph.D. in Computer Science, *expected graduation: January 2013*
Middle East Technical University, Ankara, Turkey

- Thesis: *Fusion of Multimodal Information in Multimedia Information Retrieval*
- Advisor: Prof. Dr. Adnan Yazıcı
- CGPA: 3.50

MS in Computer Science, January 2008
Middle East Technical University, Ankara, Turkey

- Thesis: *Object Extraction From Images/Videos Using a Genetic Algorithm Based Approach*
- Advisor: Prof. Dr. Adnan Yazıcı
- CGPA: 3.07

BS in Computer Science, May 2004
Bilkent University, Ankara, Turkey

- Senior Project: *Smart Digital Map of Ankara*
- Advisor: Assoc. Prof. Dr. İbrahim Körpeoğlu
- CGPA: 3.00

ACADEMIC EXPERIENCE

Dept. of Computer Engineering, Middle East Technical Univ., Ankara, Turkey

Part-time Research Assistant

March, 2008 – ..

- Semantic Content Extraction, Storage and Querying of Visual, Audio, and Text Data in Videos, supported by TÜBİTAK¹ **September, 2009 – ..**
 - Development and Integration of Automatic Semantic Content Extraction in Videos using a Spatio-Temporal Ontology Model
- Object-oriented Intelligent and Fuzzy Database Modeling and Development for Multimedia Applications, supported by TÜBİTAK¹ **March, 2008 – August 2009**
 - Development and Integration of Automatic Object Annotator using a Genetic Algorithms based approach

PUBLICATIONS

Yakup Yildirim, Adnan Yazici and **Turgay Yılmaz**. *Automatic Semantic Content Extraction in Videos using a Fuzzy Ontology and Rule-based Model*. In IEEE Transactions on Knowledge and Data Engineering (TKDE), (to appear).

Turgay Yılmaz, Adnan Yazici and Yakup Yildirim. *Exploiting Class-Specific Features in Multi-Feature Dissimilarity Space for Efficient Querying of Images*. Flexible Query Answering Systems, 9th International Conference, FQAS 2011, Ghent, Belgium, October 26-28, 2011. In Lecture Notes in Artificial Intelligence, Springer, (to appear).

Turgay Yılmaz, Yakup Yildirim and Adnan Yazici. *A Genetic Algorithms Based Classifier For Object Classification In Images*. 26th International Symposium on Computer and Information Sciences, ISCIS 2011, London, UK, September 26-28, 2011. In Lecture Notes in Electrical Engineering, Springer, (to appear).

Utku Demir, Murat Koyuncu, Adnan Yazici, **Turgay Yılmaz** and Mustafa Sert. *Flexible Content Extraction and Querying for Videos*. Flexible Query Answering Systems, 9th International Conference, FQAS 2011, Ghent, Belgium, October 26-28, 2011. In Lecture Notes in Artificial Intelligence, Springer, (to appear).

Murat Koyuncu, **Turgay Yilmaz**, Yakup Yildirim and Adnan Yazici. *A Framework for Fuzzy Video Content Extraction, Storage and Retrieval*. In FUZZ-IEEE'10: Proceedings of the IEEE International Conference on Fuzzy Systems 2010, Barcelona, SPAIN, 2010.

Yakup Yildirim, Turgay Yilmaz, and Adnan Yazici. *Ontology-supported object and event extraction with a genetic algorithms approach for object classification*. In CIVR'07: Proceedings of the 6th ACM international conference on Image and video retrieval, pages 202-209, New York, NY, USA, 2007. ACM.

PROFESSIONAL
EXPERIENCE

Havelsan A.Ş., Ankara, Turkey

Senior Engineer

February, 2005 – ..

- Involved in Turkish Air Force Command and Control System (TuAF CCIS) Project (\$200M budget)
 - Experience gained
 - Functional: Command & Control Resource Management, Friendly Order of Battle, Flight Plan, Situation Awareness and Decision Support, DAFIF Integration, Java - SAP-R3 Integration
 - Technical: Java(J2EE), JBoss, Oracle, CVS, XML, Ant, SAP-R3, Rational Software
- Involved in the Bidding Proposal Group for NATO Air Command and Control Information System (AirC2IS) Project (€29M budget)
 - Experience gained
 - Functional: Requirements analysis, System architecture design, ORBAT module detailed design, System Design Specification documentation, Demo preparation
 - Technical: .NET, SOA, ESB, MOSS, BizTalk, MSSQL
- Involved in the Bidding Proposal Group for NATO Common Operational Picture (NCOP) Project (€15M budget)
 - Experience gained
 - Functional: Requirements analysis, System architecture design, Detailed design of interoperability with external systems, System Design Specification documentation, Interface Control Document documentation, System Development Plan documentation
 - Technical: .NET, SOA, ESB, BizTalk, MSSQL
- Prepared TÜBİTAK¹ Grant Proposal for Automatic Target Acquisition (ATA) Project (\$10M budget)
 - Experience gained
 - Functional: Requirements analysis, System architecture design, Definition of scope and system concept, Writing proposal documentation
 - Academic: Literature survey on ortorectification, segmentation, road/building detection and 3D reconstruction
- Prepared MSIT² Grant Proposal for Havelsan Video Analysis System (HVAS) Project (\$150K budget)
 - Acted as project initiator and proposal lead
 - Experience gained
 - Functional: Requirements analysis, System architecture design, Definition of scope and system concept, Writing proposal documentation, Project management
 - Academic: Literature survey on face/human detection, human tracking, object detection/recognition, event detection/recognition/inference/prediction.

EES Ltd. Sti., Ankara, Turkey

Computer Engineer

July, 2004 – January, 2005

- Experience gained
 - Functional: Design and Implementation of Library Automation System and Hospital Information System
 - Technical: AJAX, JScript, C# and MSSQL

COMPUTER
SKILLS

Programming Languages:

- Java, C#, C++, PHP, HTML, XML, JavaScript, Matlab, SQL, MySQL, UML

Database Systems:

- Oracle, MSSQL, MySQL, DB4O, BerkeleyDB, JavaDB (Derby), HSQLDB

Application Frameworks:

- AJAX, GWT, Netsco, Hibernate, JNI

Platforms:

- Windows XP/Vista/7, Unix, Linux, DOS

Application Programs:

- MS Office, MS Front Page, MS Visio, MOSS, MS Project, L^AT_EX 2_ε, Adobe Photoshop, Macromedia FreeHand, CVS, SVN, MS Visual Studio .NET, IntelliJ IDEA, OriginPro, Weka, RapidMiner, Rational Clearquest, Rational Rose

HONOURS AND
AWARDS

2000-2004, Full Scholarship (education, accomodation, stipend) at Bilkent University (2000-2004)
2000, Nationwide University Exam, ranked 312th (among 1.500.000 people)
2000, Ranked 2nd in graduation from high school
1999, Ranked 2nd in Marmara Region in TUBITAK Physics exams
1997, Nationwide High School Entrance Exam, ranked 162nd Nationwide (among app. 900.000 people)
1993, Nationwide Junior High School Entrance Exam, ranked 28th Nationwide (among app. 500.000 people)

REFERENCES

Available on request.

¹ TÜBİTAK: The Scientific and Technological Research Council of Turkey

² MSIT: Republic of Turkey, Ministry of Science, Industry and Technology