



## Conference Publications

8. **O. Kucuktunc**, U. Gudukbay, O. Ulusoy, “A Natural Language Based Interface for Query Specification in a Video Database Management System,” *IEEE Multimedia*, vol.14, no.1, pp.83–89, Jan-Mar, 2007.
1. **O. Kucuktunc**, E. Saule, K. Kaya, U.V. Catalyurek, “Towards a Personalized, Scalable, and Exploratory Academic Recommendation Service,” In *Proc. IEEE/ACM Int’l Conf. on Social Networks Analysis and Mining (ASONAM’13)*, 2013.
2. **O. Kucuktunc**, E. Saule, K. Kaya, U.V. Catalyurek, “TheAdvisor: A Web-service for Academic Recommendation”, In *Proc. 13th ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL’13)*, 2013.
3. **O. Kucuktunc**, E. Saule, K. Kaya, U.V. Catalyurek, “Diversified Recommendation on Graphs: Pitfalls, Measures, and Algorithms”, In *Proc. 22nd Int’l World Wide Web Conf. (WWW’13)*, 2013 (acceptance rate 15%).
4. **O. Kucuktunc**, E. Saule, K. Kaya, U.V. Catalyurek, “Result diversification in automatic citation recommendation”, In *Proc. iConference Workshop on Computational Scientometrics: Theory and Applications*, 2013.
5. **O. Kucuktunc**, E. Saule, K. Kaya, U.V. Catalyurek, “Direction Awareness in Citation Recommendation”, In *Proc. 6th International Workshop on Ranking in Databases (DBRank’12) in conjunction with VLDB’12*, 2012.
6. **O. Kucuktunc**, K. Kaya, E. Saule, U.V. Catalyurek, “Fast Recommendation on Bibliographic Networks,” In *Proc. IEEE/ACM International Conference on Social Networks Analysis and Mining (ASONAM’12)*, 2012 (acceptance rate 16%).
7. K. Kaya, E. Saule, **O. Kucuktunc**, U.V. Catalyurek, “Algorithms for Offline Tracking of Connected Components in Large Evolving Networks,” In *Proc. Workshop on Dynamic Network Analysis (DNA-SDM) in conj. with SDM’12*, 2012.
8. **O. Kucuktunc**, B.B. Cambazoglu, I. Weber, H. Ferhatosmanoglu, “A Large-Scale Sentiment Analysis for Yahoo! Answers,” In *Proc. 5th ACM Int’l Conf. Web Search and Data Mining (WSDM’12)*, 2012 (acceptance rate 20.7%).
9. **O. Kucuktunc**, D. Zamalieva, “Fuzzy Color Histogram-based CBIR System,” In *Proc. 1st Int’l Fuzzy Systems Symp. (FUZZYSS’09)*, Ankara, Turkey, 2009.
10. **O. Kucuktunc**, S.G. Sevil, A.B. Tosun, H. Zitouni, P. Duygulu, F. Can, “Tag Suggestr: Automatic Photo Tag Expansion using Visual Information for Photo Sharing Websites,” In *Proc. 3rd Int’l Conf. Semantic and Digital Media Technologies (SAMT’08)*, 2008.
11. **O. Kucuktunc**, M. Bastan, U. Gudukbay, O. Ulusoy, “Bilkent University Multimedia Database Group at TRECVID 2008,” In *Proc. TREC Video Retrieval Evaluation (TRECVID’08)*, 2008.
12. A. Bulbul, **O. Kucuktunc**, B.Ozguc, “Animation of Boiling Phenomena,” In *Proc. 3DTV Conference*, pp.357–360, 2008.

## Technical Reports

1. **O. Kucuktunc**, E. Saule, K. Kaya, U.V. Catalyurek, “Diversifying Citation Recommendations”, arxiv:1209.5809, Sep 2012.
2. **O. Kucuktunc**, E. Saule, K. Kaya, U.V. Catalyurek, “Recommendation on Academic Networks using Direction Aware Citation Analysis”, arxiv:1205.1143, May 2012.
3. **O. Kucuktunc**, H. Ferhatosmanoglu, Diverse Browsing for Spatial Data, OSU-CISRC-1/11-TR02, February 2011.

**Conference  
Presentations**

1. "Diversified Recommendation on Graphs: Pitfalls, Measures, and Algorithms", *22nd Int'l World Wide Web Conf. (WWW'13)*, Rio de Janeiro, Brazil, May 2013.
2. "Direction Awareness in Citation Recommendation", *6th International Workshop on Ranking in Databases (DBRank'12) in conjunction with VLDB'12*, Istanbul, Turkey, Aug 2012.
3. "A Large-Scale Sentiment Analysis for Yahoo! Answers," *5th ACM Int'l Conf. Web Search and Data Mining (WSDM'12)*, Seattle, WA, Feb 2012.
4. "BilVideo: MPEG-7 Compliant Video Database Management System," *MUSCLE Conference joint with VITALAS Conference (MCVC'08)*, Cannes, France, Feb 2008.

**Theses**

1. Content-based Video Copy Detection Using Multimodal Analysis  
Master's Thesis, Bilkent University, Ankara, Turkey, 2009.
2. Result Diversification on Spatial, Multidimensional, Opinion, and Bibliographic Data  
Ph.D. Dissertation, The Ohio State University, 2013.

**Awards and  
Honors**

Student Scholarship from Google to attend WWW'13	2013
Second Prize, 7th Annual CSE Graduate Student Poster Exhibition at OSU	2013
Honorable Mention, 2011 International Photography Exhibition at OSU	2011
Honorable Mention, 2010 International Photography Exhibition at OSU	2010
Elected secretary of Turkish Students Association (TSA) at OSU	2010-2011
Elected member of CSE Graduate Steering Committee	2010-2011
6 semesters for High Honor, 2 semesters for Honor student	2003-2007
Winner of web standards awards competition SWSSY	2006
Success Certificate from the Photographic Art Society FSK	2005
Member of winner team: SoftwareQuest, CS102 Project, Bilkent University	2004
Ranked 52nd in National University Entrance Examination in quantitative	2003

**Past Experience**

<b>Internship</b> , Yahoo! Research, Barcelona, Spain	Spring 2011
<ul style="list-style-type: none"><li>• Worked on sentiment analysis, sentiment prediction, opinion diversity, entity-based bursty event detection projects on Yahoo! Answers data</li><li>• Familiarized with Hadoop, MapReduce paradigm, GBDT tool</li><li>• Mentors: Dr. Aristides Gionis, Dr. B. Barla Cambazoglu</li></ul>	
<b>Graduate research assistant</b> , The Ohio State University	
<ul style="list-style-type: none"><li>• High Performance Computing Lab</li><li>• Database Research Group</li></ul>	Autumn 2011 - Summer 2013 Autumn 2009 - Summer 2011
<b>Teaching assistant</b> , Bilkent University	
<ul style="list-style-type: none"><li>• Algorithms and Programming I</li><li>• Algorithms and Programming I</li><li>• Fundamental Structures of Computer Science II</li><li>• Algorithms and Programming II</li></ul>	Spring 2009 Fall 2008 Spring 2008 Fall 2007
<b>Contract worker</b> , Google Inc.	Summer 2008
<ul style="list-style-type: none"><li>• Summer of Code program</li><li>• Implemented Automatic Feature Matching and integrated with hugin</li><li>• Mentored by Alexandre Jenny, Kolor</li></ul>	
<b>Summer trainee</b> , iFountain LLC, Molkay Yazilim, Ankara	Summer 2006
<ul style="list-style-type: none"><li>• Created adaptor processing events based on time of the day</li></ul>	

- User interface enhancements for RapidConfigurator
- AJAX/JS-based monitoring script for RapidWatcher

## Projects

**Citation, Venue, and Reviewer Recommendation on Citation Graph** 2012  
 Developed a method, direction-aware random walk with restart, to make personalized paper recommendations to researchers using the citation graph, and implemented a scalable web interface of the service, accessible via <http://theadvisor.osu.edu>, (see publications).

**Sentiment Analysis and Opinion Retrieval** 2011  
 Investigated the correlations of sentiments with textual, topical, demographical, spatial, and temporal features on a large-scale question-answering website, Yahoo! Answers (see publications). Our analyses provide a scientific basis for an entity-based opinion retrieval applications.

**Diversity on Spatial and High-Dimensional Data** 2009-2011  
 Investigated the concepts of *diversity* and *diverse nearest neighbor search* in various fields and application areas with different types of data, such as spatial, high-dimensional, etc. We developed geometric and index-based techniques to obtain a diverse set of results, including Factual's U.S. point-of-interest data (see publications).

**Content-based Copy Detection (CBCD) using MPEG-7 features** 2008-2010  
 Proposed a video copy detection framework for TRECVID 2008 that detects copy segments by fusing the results of three different techniques: facial shot matching, activity subsequence matching, and non-facial shot matching using low-level features (see masters thesis and publications).

**Automatic Feature Matching for Panorama Stitching Software** 2008  
 Introduced and evaluated automatic keypoint matching algorithms for panorama stitching as a Google Summer of Code 2008 project for hugin/panotools.

**TagSuggestr: Automatic Tag Expansion Using Visual Similarity** 2008  
 Developed a computer vision-based tag recommendation method for photo sharing websites, such as Flickr (see publications).

**3D Face Reconstruction from 2D Images for Effective Face Recognition** 2008  
 Proposed a 3D face reconstruction method by automatically matching SIFT features, an alternative to manual selection of feature points among different images.

**Animation of Boiling Phenomena** 2007  
 Implemented an efficient method for the simulation of boiling water based on modeling grid-based fluid surface, and bubbles & waves as particles (see publications).

**Various Approaches to Traveling Salesman Problem** 2006 - 2007  
 Developed optimized algorithms for solving famous TSP problem as the senior design project, compared genetic, branch&bound, and brute-force algorithms.

**Pathway Analysis Tools for Integration and Knowledge Acquisition** 2006  
 Worked on BioPAX & SBML to PATIKA Model conversion for the Pathway Analysis Tools for Integration and Knowledge Acquisition (PATIKA) project.

**BilVideo: A Video Database Management System** 2005  
 Introduced natural language-based querying interface for BilVideo Video Database Management System and integrated it with the Web-based Visual Query Interface (see

publications).

**Computer Skills** C/C++, Java, MATLAB, shell scripting, PHP, SQL, MapReduce, L<sup>A</sup>T<sub>E</sub>X, git

**Academic and Social Activities** External reviewer for conferences: *CIKM*'08, *SSTD*'09, *SIGMOD*'10, *ICDM*'10, *ICDE*'11, *ECML*'11, *VLDB*'12, *IPDPS*'12, *IUI*'13  
External reviewer for journals: *VLDBJ*, *IEEE Transactions on Multimedia*, *TKDE*  
Member of the judging committee, 2012 International Photography Exhibition  
Student volunteer at WSDM 2012, Seattle, WA  
Student volunteer at CVPR 2010, San Francisco, CA  
Member of Linux Users Group (LKD)  
Member of National Geographic Society  
Member of Bilkent University Photography Club

**Languages** Turkish (Native), English (Advance), German (Beginner)

**References** Available upon request