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International Researcher IDs

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Education Information

Doctorate, Case Western Reserve University, United States Of America 2003 - 2009

Undergraduate, Ihsan Dogramaci Bilkent University, Turkey 1998 - 2003

Research Areas

Computer Sciences, bioinformatics, Database and Data Structures, Artificial Intelligence, Computer Learning and Pattern Recognition

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Predicting the predisposition to colorectal cancer based on SNP profiles of immune phenotypes using supervised learning models**
Çakmak A., Ayaz H., Arıkan S., İbrahimzade A. R., Demirkol S., Sonmez D., Hakan M. T., Surmen S. T., Horozoglu C., Dogan M. B., et al.
MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING, vol.61, no.1, pp.243-258, 2023 (SCI-Expanded)
- II. **Personalized Metabolic Analysis of Diseases.**
Cakmak A., Celik M.
IEEE/ACM transactions on computational biology and bioinformatics, vol.18, pp.1014-1025, 2021 (SCI-Expanded)
- III. **Using positional sequence patterns to estimate the selectivity of SQL LIKE queries**
Aytimur M., Çakmak A.
Expert Systems with Applications, vol.165, 2021 (SCI-Expanded)
- IV. **Scalable classification of organisms into a taxonomy using hierarchical supervised learners**
Sohsah G. N., İbrahimzade A. R., Ayaz H., Çakmak A.
JOURNAL OF BIOINFORMATICS AND COMPUTATIONAL BIOLOGY, vol.18, no.5, 2020 (SCI-Expanded)
- V. **Exploring the power of supervised learning methods for company name disambiguation in microblog posts**
Polat E. N., Çakmak A., Turan R. N.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.28, no.5, pp.2400-2415, 2020 (SCI-Expanded)

- VI. **Interactive exploratory soccer data analytics**
Delibas E., Uzun A., Inan M. F., Guzey O., Cakmak A.
INFOR, vol.57, no.2, pp.141-164, 2019 (SCI-Expanded)
- VII. **COMPUTATIONAL MODELING OF PASS EFFECTIVENESS IN SOCCER**
Cakmak A., Uzun A., Delibas E.
ADVANCES IN COMPLEX SYSTEMS, vol.21, 2018 (SCI-Expanded)
- VIII. **Estimating the selectivity of LIKE queries using pattern-based histograms**
Aytimur M., Cakmak A.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.26, no.6, pp.3319-3334, 2018 (SCI-Expanded)
- IX. **An online system for metabolic network analysis**
Cicek A. E., Qi X., Cakmak A., Johnson S. R., Han X., Alshalwi S., Ozsoyoglu Z. M., Ozsoyoglu G.
DATABASE-THE JOURNAL OF BIOLOGICAL DATABASES AND CURATION, 2014 (SCI-Expanded)
- X. **PathCase-SB: integrating data sources and providing tools for systems biology research**
Coskun S. A., Qi X., Cakmak A., Cheng E., Cicek A. E., Yang L., Jadeja R., Dash R. K., Lai N., Ozsoyoglu G., et al.
BMC SYSTEMS BIOLOGY, vol.6, 2012 (SCI-Expanded)
- XI. **A NEW METABOLOMICS ANALYSIS TECHNIQUE: STEADY-STATE METABOLIC NETWORK DYNAMICS ANALYSIS**
Cakmak A., Qi X., Cicek A. E., Bederman I., Henderson L., Drumm M., Ozsoyoglu G.
JOURNAL OF BIOINFORMATICS AND COMPUTATIONAL BIOLOGY, vol.10, no.1, 2012 (SCI-Expanded)
- XII. **PathCase-SB architecture and database design**
Cakmak A., Qi X., Coskun S. A., Das M., Cheng E., Cicek A. E., Lai N., Ozsoyoglu G., Ozsoyoglu Z. M.
BMC SYSTEMS BIOLOGY, vol.5, 2011 (SCI-Expanded)
- XIII. **Querying metabolism under different physiological constraints**
Cakmak A., Ozsoyoglu G., Hanson R. W.
Journal of Bioinformatics and Computational Biology, vol.8, no.2, pp.247-293, 2010 (SCI-Expanded)
- XIV. **Context-based literature digital collection search**
Ratprasartporn N., Po J., Cakmak A., Bani-Ahmad S., Ozsoyoglu G.
VLDB JOURNAL, vol.18, no.1, pp.277-301, 2009 (SCI-Expanded)
- XV. **PathCase: pathways database system**
Elliott B., Kirac M., Cakmak A., Yavas G., Mayes S., Cheng E., Wang Y., Gupta C., Ozsoyoglu G., Ozsoyoglu Z. M.
BIOINFORMATICS, vol.24, no.21, pp.2526-2533, 2008 (SCI-Expanded)
- XVI. **Discovering gene annotations in biomedical text databases**
Cakmak A., Ozsoyoglu G.
BMC BIOINFORMATICS, vol.9, 2008 (SCI-Expanded)
- XVII. **Mining biological networks for unknown pathways**
Cakmak A., Ozsoyoglu G.
BIOINFORMATICS, vol.23, no.20, pp.2775-2783, 2007 (SCI-Expanded)

Articles Published in Other Journals

- I. **Predicting Student Success in Courses via Collaborative Filtering**
ÇAKMAK A.
International Journal of Intelligent Systems and Applications in Engineering, vol.1, no.5, pp.10-17, 2017 (Peer-Reviewed Journal)
- II. **PathCase SB database enabled tools for regulatory metabolic networks**
QI X., Coskun S. A., ÇAKMAK A., CHENG E., ÇİÇEK A. E., Das M., Yang L., Jadeja R., Syed S., Dash R., et al.
ACM SIGBioinformatics Record, vol.2, no.3, pp.19-25, 2012 (Non Peer-Reviewed Journal)
- III. **Evaluating Publication Similarity Measures**
Bani Ahmad S., ÇAKMAK A., ÖZSOYOĞLU G., Alhamdani A.

Refereed Congress / Symposium Publications in Proceedings

- I. **Predicting the Predisposition to Colorectal Cancer based on SNP Profiles of Immune Checkpoints using Supervised Learning Models.**
ÇAKMAK A., İbrahimzada A. R., Arıkan S., Ayaz H., Demirkol Ş., Sönmez D., HAKAN M. T., Turan Sürmen S., HOROZOĞLU C., KÜÇÜKHÜSEYİN Ö., et al.
VII. International Congress of Molecular Medicine, İstanbul, Turkey, 5 - 07 September 2019
- II. **Personalized metabolic analysis of diseases**
ÇAKMAK A., ÇELİK M. H.
The International Symposium on Health Informatics and Bioinformatics (HIBIT), 25 - 27 October 2018
- III. **High impact academic paper prediction using temporal and topological features**
Davletov F., Aydin A. S., Cakmak A.
23rd ACM International Conference on Information and Knowledge Management, CIKM 2014, Shanghai, China, 3 - 07 November 2014, pp.491-498
- IV. **Training the Data Scientists of the Future**
BULUT A., ARICI T., GÜZEY O., ARSLAN B., ÇAKMAK A.
Big Data and Analytics Education Conference (EDCON), 25 - 26 October 2014
- V. **PathCase-MAW: An online metabolic network analysis workbench**
Cicek A. E., Qi X., Cakmak A., Johnson S. R., Han X., Alshalwi S., Ozsoyoglu G.
2013 4th ACM Conference on Bioinformatics, Computational Biology and Biomedical Informatics, ACM-BCB 2013, Washington, United States Of America, 22 - 25 September 2013, pp.219-228
- VI. **Computational interpretation of metabolomics measurements: Steady-state metabolic network dynamics analysis**
Cakmak A., Qi X., Cicek A. E., Özsoyoglu G.
2011 ACM Conference on Bioinformatics, Computational Biology and Biomedicine, ACM-BCB 2011, Chicago, IL, United States Of America, 1 - 03 August 2011, pp.387-392
- VII. **Efficient query evaluation for DAG-shaped hierarchies**
Cheng E., Cakmak A., Ozsoyoglu Z. M.
2010 ACM International Conference on Bioinformatics and Computational Biology, ACM-BCB 2010, Niagara Falls, NY, United States Of America, 2 - 04 August 2010, pp.454-456
- VIII. **Analyzing metabolite measurements for automated prediction of underlying biological mechanisms**
Cakmak A., Dsouza A., Hanson R. W., Ozsoyoglu M.
2010 ACM International Conference on Bioinformatics and Computational Biology, ACM-BCB 2010, Niagara Falls, NY, United States Of America, 2 - 04 August 2010, pp.137-146
- IX. **Advanced querying interface for biochemical network databases**
Elliott B., Mayes S., Cakmak A., Ozsoyoglu G., Ozsoyoglu Z. M.
25th Annual ACM Symposium on Applied Computing, SAC 2010, Sierre, Switzerland, 22 - 26 March 2010, pp.1526-1533
- X. **Managing and Querying Mammalian Metabolic Networks: A Metabolism Query Language and Its Query Processing**
ÇAKMAK A., Ozsoyoglu G., Hanson R.
8th International Conference on Computational Systems Bioinformatics (CSB 2009), 10 - 12 August 2009
- XI. **PopulusLog: People Information Database**
Cakmak A., Kirac M., Ozsoyoglu G.
24th International Symposium on Computer and Information Sciences, Güzelyurt, Cyprus (Kktc), 14 - 16 September 2009, pp.165-170
- XII. **A Web-Based Data Source for Metabolomics**
Cakmak A., Dsouza A., Hanson R., Ozsoyoglu G., Ozsoyoglu M.

24th International Symposium on Computer and Information Sciences, Güzelyurt, Cyprus (Kktc), 14 - 16 September 2009, pp.453-454

- XIII. **Taxonomy-superimposed graph mining**
Cakmak A., Ozsoyoglu G.
11th International Conference on Extending Database Technology, EDBT 2008, Nantes, France, 25 - 29 March 2008, pp.217-228
- XIV. **Gene ontology-based annotation analysis and categorization of metabolic pathways**
Cakmak A., Kirac M., Reynolds M. R., Ozsoyoglu Z. M., Ozsoyoglu G.
19th International Conference on Scientific and Statistical Database Management, SSDBM 2007, Banff, Canada, 9 - 11 July 2007
- XV. **Annotating genes using textual patterns**
Cakmak A., Ozsoyoglu G.
13th Pacific Symposium on Biocomputing (PSB), Hawaii, United States Of America, 3 - 07 January 2007, pp.221-222
- XVI. **Evaluating different ranking functions for context-based literature search**
Ratprasartpom N., Bani-Ahmad S., Cakmak A., Po J., Ozsoyoglu G.
IEEE 23rd International Conference on Data Engineering Workshop, İstanbul, Turkey, 17 - 20 April 2007, pp.261-268
- XVII. **On data and visualization models for signaling pathways**
Ratprasartporn N., Cakmak A., Ozsoyoglu G.
18th International Conference on Scientific and Statistical Database Management, SSDBM 2006, Vienna, Australia, 3 - 05 July 2006, pp.133-142
- XVIII. **Task-oriented integrated use of biological web data sources**
Kirac M., Cakmak A., Ozsoyoglu G.
18th International Conference on Scientific and Statistical Database Management, SSDBM 2006, Vienna, Australia, 3 - 05 July 2006, pp.81-90
- XIX. **Evaluating score and publication similarity functions in digital libraries**
Bani-Ahmad S., Cakmak A., Al-Hamdani A., Ozsoyoglu G.
8th International Conference on Asian Digital Libraries, ICADL 2005, Bangkok, Thailand, 12 - 15 December 2005, pp.483-485

Supported Projects

Çakmak A., Research Project of the Presidency of Turkey Health Institutes (TÜSEB), "Tools and Algorithms for Multi-omics Supported Personalized Treatment Recommendation, Drug Repositioning, and Drug Target Discovery", 2020 - 2024

Çakmak A., TUBITAK Project, New Methods and Algorithms to Estimate the Selectivity of SQL LIKE Queries, 2017 - 2019

Çakmak A., TUBITAK Project, Algorithms and Tools for Computational Modeling of Metabolomics Data, 2015 - 2017

Çakmak A., TUBITAK Project, Data Mining Techniques for Fast Query Optimization in Relational Database Systems, 2014 - 2015

Metrics

Publication: 40

Citation (WoS): 105

Citation (Scopus): 197

H-Index (WoS): 6

H-Index (Scopus): 8

Non Academic Experience

Oracle