

Elad Yom-Tov

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Professional experience

MICROSOFT RESEARCH
Principal Researcher, 2012 -

New York, USA & Herzeliya, Israel

I am a founding member of the Microsoft Research New-York lab, and am currently working at the Israel offices of Microsoft.

YAHOO RESEARCH
Senior Research Scientist, 2010 - 2012

New York, USA

I was a member of the Information Retrieval group. My research revolved around questions of what peoples' behavior on the web can teach us about human behavior in the physical world. In this line of work, focusing on healthcare, I demonstrated that search logs could be used for identifying previously unknown side effects of medical drugs, as well as for tracking the mental states of cancer patients. I also investigated the effect of social and physical distances on information needs.

Another research direction I pursued was related to Yahoo's network, showing how engagement could be optimized by modifying web site style to increase the likelihood that users stay on the network.

IBM HAIFA RESEARCH LABORATORIES
Staff member, 2004 - 2010

Haifa, Israel

I worked in the Data Analytics department where I applied machine learning tools to projects in Social Analytics, Information Retrieval, and Autonomic Computing. I also worked on developing tools for Machine Learning, including the Parallel Machine Learning (PML) toolbox.

My work included:

- Leading the team which developed the IBM SPSS Modeler Social Network Analysis module. This is a new business intelligence solution for very large data. The team comprised of five researchers and several marketing colleagues in over ten countries, working with large telecom operators as clients. Our work resulted in a successful deployment of the system, with significant results both academically and for IBM's business.

- Research in the field of Query Difficulty Estimation for Information Retrieval, which resulted in a better understanding of this problem, and several applications to alleviate the it.
- Identifying opportunities for applying Machine Learning in different domains, and initiating new activities and projects.
- Preparing proposals to the EU and participating in EU projects, collaborating with researchers in Academia.
- Submitting and evaluating patent applications. I was named Master Inventor for this work.

RAFAEL LTD Leshem, Israel
 Research Engineer, 2002 - 2004
 Worked as a research engineer at the image processing department of Rafael.

MAX PLANCK INSTITUTE Tuebingen, Germany
 Lecturer, Summer 2003
 I gave a course titled "Introduction to pattern recognition" at the Machine Learning Summer School held in the Max Planck Institute for Biological Cybernetics.

Afula, Israel

Independent developer of a medical device, 1999 - 2002
 In parallel with my studies at the Technion I developed, patented, and tested a new fetal monitor. The monitor is based on a novel signal processing algorithm I developed. After testing the device offline I developed an online, realtime, version of the device. The device underwent clinical trials at the maternity ward of Ha'Emek hospital, with promising results. A patent for this device was approved.

TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
 Lecturer, 2002
 Taught the "Vision and Hearing Systems" course at the faculty of Electrical Engineering. The course is a joint undergraduate-graduate course on computational vision and certain biological aspects of the visual and auditory systems.

TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
 Teaching assistant, 1998-2001
 Throughout my studies at the Technion I have worked as a teaching assistant. As such, I gave drills in the following courses: Introduction to Electrical Engineering, Introduction to Digital Signal Processing, and Control of Physiological Systems. In addition, I have supervised upwards of 15 undergraduate projects in the field of Biomedicine.

Ramat-Hasharon, Israel

Freelance computer programmer, 1994-1997
 While studying for a B.Sc. I worked as a freelance programmer. This included writing software to aid in the identification of bird feathers for the Israeli Air Force, as well as various other small projects. These programs were written in Matlab, Visual Basic and C++.

- Education**
- TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
Ph.D. in Electrical Engineering. 2000 – 2002
Studied under the supervision of Prof. G.F. Inbar. My thesis subject was "Detection of transient phenomena in movement related potentials". My work dealt with detection, processing and classification of signals in a very low signal-to-noise environment.
- TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
M.Sc. in Electrical Engineering. 1998 – 1999
Studied under the supervision of Prof. G.F. Inbar. My thesis subject was "Movement-related potentials in the human spinal cord preceding toe movement".
- TEL-AVIV UNIVERSITY Tel-Aviv, Israel
B.Sc. in Electrical Engineering. 1994 – 1997
Studied Electrical Engineering with an emphasis on Digital Signal Processing, Bio-Medical Engineering, Communication and Computer hardware. My final grade point average was 90.
- DARTMOUTH COLLEGE Hanover, NH, USA
EMBS Summer school. June 2001
Participated in the EMBS summer school on BioComplexity, BioScaling, Biosignal Interpretation.

Publications

Books

- D.G. Stork, E. Yom-Tov (2004) "Computer Manual to accompany Pattern Classification", *Wiley*.
- D. Carmel, E. Yom-Tov (2010) "Estimating the Query Difficulty for Information Retrieval", *Morgan & Claypool*.
- M. Lalmas, H. O'Brien, E. Yom-Tov (2014) "Measuring user engagement", *Morgan & Claypool*.
- E. Yom-Tov (2016) "Health of a crowd", *MIT Press* (In press).

Chapters in Books

- G.F. Inbar, E. Yom-Tov (2000) "Estimation of Motor Task Effects on Adaptation and Learning from Recorded Single Movement Related Brain Potentials", In: "Sensorimotor Control", R. Dengler, A. Kossev, eds., *NATO series Life Science and Technology, Series 1: Life and Behavioural Sciences* 326: 195-202.
- E. Yom-Tov (2004) "An introduction to Pattern Classification" In: O. Bousquet, U. von Luxburg and G. Ratsch: *Advanced Lectures on Machine Learning*. LNAI 3176, *Springer*

E. Yom-Tov (2005) "Signals and Systems" In: M.D. Binder, N. Hirokawa, U. Windhorst: Encyclopedic reference of Neuroscience *Springer*

E. Yom-Tov (2007) "A distributed sequential solver for large scale SVMs" In: O. Chapelle, D. DeCoste, J. Weston, L. Bottou: Large scale kernel machines *MIT Press*: 141-156.

E. Yom-Tov (2009) "Machine learning techniques for large data" In: R. Rao, G. Cecchi: High-throughput image reconstruction and analysis: intelligent microscopy applications *Artech House*: 161-177.

E. Pednault, A. Ghoting, E. Yom-Tov (2011) "The IBM Parallel Machine Learning Toolbox" In: R. Bekkerman, M. Bilenko, J. Langford: Machine Learning on Very Large Data Sets *Cambridge University Press*: 69-87.

Tutorials

D. Carmel, E. Yom-Tov (2010) "Estimating the query difficulty for information retrieval" *Proceedings of the 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2010)*, Geneva, Switzerland. pp.: 911.

M. Lalmas, H. O'Brien, E. Yom-Tov (2013) "Measuring user engagement" *Proceedings of the 22nd International World Wide Web conference (WWW 2013)*, Rio de Janeiro, Brazil.

E. Yom-Tov, I. J. Cox, V. Lampos (2015) "Learning About Health and Medicine from Internet Data" *Proceedings of the Eighth ACM International Conference on Web Search and Data Mining (WSDM 2015)*, Shanghai, China. pp.: 417-418.

Journal Articles

E. Yom-Tov, S. Yom-Tov, H. Ur (1999) "A model of induced coupled movements in the human body - a case study". *Biological Cybernetics* 80: 411-416.

E. Yom-Tov, G.F. Inbar (2000) "Movement-related potentials in the human spinal cord preceding toe movement". *Clinical Neurophysiology* 111: 350-361.

E. Yom-Tov, A. Grossman, G.F. Inbar (2001) "Movement-related potentials during the performance of a motor task 1: The effect of learning and force on the movement-related potentials". *Biological Cybernetics* 85(5): 395-399.

E. Yom-Tov, A. Grossman, G.F. Inbar (2001) "Movement-related potentials during the performance of a motor task 2: Cerebral areas activated during learning of the task". *Biological Cybernetics* 85(5): 387-394.

E. Yom-Tov, G.F. Inbar (2001) "Feature Selection for the Classification of Movements from Single Movement-Related Potentials". *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 10(3): 170-177.

- D. Peleg, E. Braiman, E. Yom-Tov, G.F. Inbar (2002) "Classification of finger activation for use in a robotic prosthesis arm". *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 10(4): 290-293.
- E. Yom-Tov, G.F. Inbar (2003) "On the detection of Movement-Related Potentials from on-going EEG for use in a Brain-Computer Interface". *Medical and Biological Engineering and Computing* 41(1): 85-93.
- H. Serbi, E. Yom-Tov, and G.F. Inbar (2005) "An improved P300-based brain-computer interface" *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 13(1): 89-98 **Recipient of the TNSRE Best Paper Award 2010**
- I. Makienko, E. Yom-Tov, and G.F. Inbar (2005) "On the effects of adaptation to changing loads on movement-related potentials" *Biological Cybernetics* 93(3): 171-177.
- Y. Yom-Tov, S. Yom-Tov, D. MacDonald, E. Yom-Tov (2007) "Population cycles and changes in body size of the lynx in Alaska" *Oecologia* 152(2): 239-244.
- S. Coptly, S. Fine, S. Ur, E. Yom-Tov, A. Ziv (2008) "A Probabilistic Alternative to Regression Suites" *Theoretical Computer Science* 404(3): 219-234.
- R. El-Yaniv, D. Pechyony, E. Yom-Tov (2008) "Better Multiclass Classification via a Margin-Optimized Single Binary Problem" *Pattern Recognition Letters* 29(14): 1954-1959.
- Y. Yom-Tov, E. Yom-Tov (2010) "Does the physical environment influence political corruption?" *Journal of Irreproducible Results* 51(2): 11-15.
- Y. Ben-Haim, E. Yom-Tov (2010) "A Streaming Parallel Decision Tree Algorithm" *Journal of Machine Learning Research (JMLR)* 11: 849-872.
- D. Carmel, H. Roitmann, E. Yom-Tov (2010) "Social Bookmark Weighting for Search and Recommendation" *The International Journal on Very Large Databases (VLDBJ)* 19(6): 761-775.
- G. Fursin, Y. Kashnikov, A. Memon, Z. Chamski, O. Temam, M. Namolaru, E. Yom-Tov, B. Mendelson, A. Zaks, E. Courtois, F. Bodin, P. Barnard, E. Ashton, E. Bonilla, J. Thomson, C.K.I. Williams, M. O. Boyle (2011) "Milepost GCC: Machine Learning Enabled Self-tuning Compiler" *International Journal of Parallel Programming* 39(3): 296-327.
- H. Roitman, D. Carmel, E. Yom-Tov (2011) "On the Relationship Between Novelty and Popularity of User-Generated Content" *ACM Transactions on Intelligent Systems and Technology* 3(4): 1-19.
- Y. Ofran, O. Paltiel, D. Pelleg, J.M. Rowe, E. Yom-Tov (2012) "Patterns of information-seeking for cancer on the Internet: an analysis of real world data" *Public Library of Science (PLoS) One* 7(9): e45921.
- E. Yom-Tov, L. Fernandez-Luque, I. Weber, S.P. Crain (2012) "Pro-anorexia and pro-recovery photo sharing: A tale of two warring tribes" *Journal of Medical Internet Research (JMIR)* 14(6): e151.

- E. Yom-Tov, F. Diaz (2012) "The Effect of Social and Physical Detachment on Information Need" *ACM Transactions on Information Systems* 31(1): 4:1-19.
- K. Dyagilev, S. Mannor, E. Yom-Tov (2013) "On Information Propagation in Mobile Call Networks" *Social Network Analysis and Mining* 3(3): 521-541.
- E. Yom-Tov, E. Gabrilovich (2013) "Post-market drug surveillance sans trial costs: Discovery of adverse drug reactions via large-scale analysis of Web search queries" *Journal of Medical Internet Research (JMIR)* 15(6): e124.
- M. Kuebler, E. Yom-Tov, R. Puhl, D. Pelleg, P. Muenning (2013) "When Overweight is the Normal Weight: An Examination of Obesity Using a Social Media Internet Database" *Public Library of Science (PLoS) One* 8(9): e73479.
- E. Yom-Tov, S. Dumais, Q. Guo (2013) "Promoting civil discourse through search engine diversity" *Social Science Computing Review* 32(2): 145-154.
- K. Dyagilev, E. Yom-Tov (2013) "Linguistic factors associated with propagation of political opinions in Twitter" *Social Science Computing Review*
- R.W. White, E. Yom-Tov, E. Horvitz, E. Agichtein, W. R. Hersh (2013) "Report on the SIGIR 2013 workshop on health search and discovery" *SIGIR Forum* 47(2): 101-108.
- E. Yom-Tov, d. m. boyd (2014) "On the link between media coverage of anorexia and pro-anorexic practices on the web" *International Journal of Eating Disorders* 47(2): 196-202.
- E. Yom-Tov, Ryen W. White, E. Horvitz (2014) "Seeking Insights about Cycling Disorders via Anonymized Search Logs" *Journal of Medical Internet Research (JMIR)* 16(2): e65.
- E. Yom-Tov, D. Borsa, I. Cox, A. Johnson, R. MacKendry (2014) "Detecting disease outbreaks in mass gatherings using Internet data" *Journal of Medical Internet Research (JMIR)* 16(6): e154.
- D. Baras, A. Ronen, E. Yom-Tov (2014) "The effect of social affinity and predictive horizon on churn prediction using diffusion modeling" *Social Network Analysis and Mining* 4(1): e232.
- E. Yom-Tov, D. Borsa, A.C. Hayward, R.A. McKendry, I.J. Cox (2015) "Automatic identification of online risk markers for health events" *Journal of Medical Internet Research (JMIR)* 17(1): e29.
- E. Yom-Tov, I. Johansson-Cox, V. Lampos, A.C. Hayward (2015) "Estimating the Secondary Attack Rate and Serial Interval of Influenza-like Illnesses using Social Media" *Influenza and Other Respiratory Viruses* 9(4): 191-199.
- L. Soldaini, A. Yates, E. Yom-Tov, O. Frieder, N. Goharian (2015) "Enhancing Web Search in the Medical Domain via Query Clarification" *Information Retrieval Journal*

V. Lampos, E. Yom-Tov, R. Pebody, I. Johansson-Cox (2015) "Assessing the Impact of a Health Intervention via User-generated Internet Content" *Data Mining and Knowledge Discovery* 29(5): 1434-1457.

Conference Articles

E. Yom-Tov, G.F. Inbar (1999) "Movement-related potentials in the human spinal cord preceding toe movement". *Fifth conference of the European Society for Engineering and Medicine*

E. Yom-Tov, G.F. Inbar (2001) "Selection of Relevant Features for Classification of Movements from Single Movement-Related Potentials Using a Genetic Algorithm". *23rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society*

E. Yom-Tov, S. Fine, D. Carmel, A. Darlow, E. Amitay (2004) "Improving document retrieval according to prediction of query difficulty" *Text Retrieval Conference (TREC) 2004*

E. Yom-Tov, S. Fine, D. Carmel, A. Darlow (2005) "Learning to estimate query difficulty with applications to missing content detection and distributed information retrieval", *28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2005)*, Salvador, Brazil. pp. 512-219. **Recipient of the Best Paper Award**

E. Yom-Tov, D. Carmel, A. Darlow, D. Pelleg, S. Errera-Yaakov, S. Fine (2005) "Juru at TREC 2005: Query Prediction in the Terabyte and the Robust tracks" *Text Retrieval Conference (TREC) 2005*

E. Yom-Tov, Y. Aridor (2006) "Improving Resource Matching Through Estimation of Actual Job Requirements", *15th IEEE International Symposium on High Performance Distributed Computing (HPDC 2006)*, Paris, France. pp. 367-368.

E. Yom-Tov, D. Carmel, A. Darlow, D. Pelleg (2006) "What makes a query difficult?", *29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2006)*, Seattle, Washington. pp. 390-397.

S. Ur, E. Yom-Tov, P. Wernick (2006) "An Open Source Simulation Model of Software Testing", *Haifa Verification Conference, (HVC 2006)*.

E. Yom-Tov, Y. Xu, M. Rosen-Zvi, J. Wong (2007) "A Novel Classification Technique Using Compression-based Similarity with Application to Residual Gas Analysis Data" *8th European AEC/APC Conference*

R. Tzoref, S. Ur, E. Yom-Tov (2007) "Instrumenting Where it Hurts - An Automatic Concurrent Debugging Technique" *Proceedings of the 2007 International Symposium on Software Testing and Analysis (ISSTA 2007)*, London, UK. pp. 27-38.

- D. Carmel, E. Yom-Tov, H. Roitman (2008) "Enhancing Digital Libraries Using Missing Content Analysis" *Proceedings of the Joint Conference on Digital Libraries (JCDL 2008)*, Pittsburgh, Pennsylvania. pp. 1-10.
- H. Roitman, D. Carmel, E. Yom-Tov (2008) "Maintaining Dynamic Channel Profiles on the Web" *Proceedings of the 34th International Conference on Very Large Data Bases (VLDB 2008)*, Auckland, New-Zealand. pp. 151-162.
- E. Yom-Tov, R. Tzoref, S. Ur, S. Hoory (2008) "Automatic debugging of concurrent programs through active sampling of low dimensional random projections" *Proceedings of the 23rd IEEE/ACM International Conference on Automated Software Engineering (ASE 2008)*, L'Aquila, Italy. pp. 307-316.
- D. Bickson, E. Yom-Tov, D. Dolev (2008) "A Gaussian Belief Propagation Solver for Large Scale Support Vector Machines" *Proceedings of the 5th European Conference on Complex Systems (ECCS 2008)*, Jerusalem, Israel.
- G. Fursin, C. Miranda, O. Temam, M. Namolaru, E. Yom-Tov, A. Zaks, B. Mendelson, E. Bonilla, J. Thomson, H. Leather, C. Williams, M. O'Boyle, P. Barnard, E. Ashton, E. Courtois, F. Bodin (2008) "MILEPOST GCC: machine learning based research compiler" *Proceedings of the GCC Developers' Summit*, Ottawa, Canada.
- E. Yom-Tov, N. Slonim (2009) "Parallel Pairwise Clustering" *Proceedings of the 2009 SIAM International Conference on Data Mining (SDM 2009)*, Reno, NV. pp. 745-755.
- E. Yom-Tov, D. Carmel, H. Roitman (2009) "Who Tags the Tags? A Framework for Social Bookmarking" *Proceedings of the 2009 Conference on Information and Knowledge Management (CIKM)*, Hong-Kong, China. pp. 1577-1580.
- Y. Richter, E. Yom-Tov, N. Slonim (2010) "Predicting customer churn in mobile networks through analysis of social groups" *Proceedings of the 2010 SIAM International Conference on Data Mining (SDM 2010)*, Columbus, OH. pp. 732-741.
- D. Carmel, H. Roitman, E. Yom-Tov (2010) "On the Relationship Between Novelty and Popularity of User-Generated Content" *Proceedings of the 2010 Conference on Information and Knowledge Management (CIKM)*, Toronto, Canada. pp. 1509-1512.
- N. Slonim, K. Crammer, E. Yom-Tov (2011) "Active online classification via information maximization" *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, Barcelona, Spain. pp. 1498-1504.
- E. Yom-Tov, F. Diaz (2011) "Out of sight, not out of mind: On the effect of social and physical detachment on information need" *Proceedings of the 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2011)*, Beijing, China. pp. 385-394 **Recipient of an Honorable Mention Award.**
- E. Yom-Tov, F. Diaz (2011) "Location and timeliness of information sources during news events" *Proceedings of the 34th Annual International ACM SIGIR Conference*

on *Research and Development in Information Retrieval (SIGIR 2011)*, Beijing, China. pp. 1105-1106.

E. Yom-Tov, M. Lalmas, G. Dupret, R. Baeza-Yates, P. Donmez, J. Lehmann (2012) "The Effect of Links on Networked User Engagement" *Proceedings of the 2012 World Wide Web conference (WWW 2012)*, Lyon, France. pp. 641-642.

J. Lehmann, M. Lalmas, E. Yom-Tov, G. Dupret (2012) "Models of user engagement" *Proceedings of the 20th International Conference on User Modeling, Adaptation and Personalization (UMAP 2012)*, Montreal, Canada. pp. 164-175.

D. Pelleg, E. Yom-Tov, Y. Maarek (2012) "Can you believe an anonymous contributor? On truthfulness in Yahoo! Answers" *Proceedings of the ASE/IEEE International Conference on Social Computing (SocialCom 2012)*, Amsterdam, The Netherlands, pp. 411-420.

Q. Guo, F. Diaz, E. Yom-Tov (2012) "Updating users about time critical news events" *Advances in Information Retrieval: Proceedings of the European Conference on Information Retrieval (ECIR 2012)*, Moscow, Russia, pp. 483-494.

I. Cox, E. Yom-Tov, D. Borsa, A. Johnson, R.A. McKendry (2013) "Detection of Disease Outbreaks in Mass Gatherings Using Internet Data" *Medicine 2.0*, London, UK.

E. Yom-Tov, M. Lalmas, R. Baeza-Yates, G. Dupret, J. Lehmann, P. Donmez (2013) "Measuring Inter-Site Engagement" *Proceedings of the 2013 IEEE International Conference on Big Data (BigData 2013)*, Santa Clara, USA, pp. 228-236.

E. Yom-Tov, L. Fernandez-Luque (2014) "Information is in the eye of the beholder: Seeking information on the MMR vaccine through an Internet search engine" *Proceedings of the American Medical Informatics Association (AMIA) Annual Symposium*, Washington, DC, pp. 1238-1247 **Short-listed for the Distinguished Paper Award**

A. Ben-Sasson, E. Yom-Tov (2015) "Online Queries of Parents Suspecting Their Child Has ASD: A Clinician Mediated Machine Learning Prediction of ASD Risk" *Accepted for publication in the 2015 International Meeting for Autism Research (IMFAR)*

E. Yom-Tov (2015) "Ebola data from the Internet: An opportunity for syndromic surveillance or a news event?" *Proceedings of the 2015 ACM Digital Health (DH) conference*, Florence, Italy, pp. 115-119.

J. Dong, G. Yom-Tov, E. Yom-Tov (2015) "The Impact of Delay Announcements on Hospital Network Coordination and Waiting Times" *Accepted for publication in the 2015 Manufacturing and service operations management (MSOM) conference*

M. Harel, E. Yom-Tov (2015) "Modularity-based query clustering for identifying users sharing a common condition" *Accepted for publication in of the 38th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2015)*

H. Neuvirth, Y. Finkelstein, A. Hilbuch, S. Nahum, D. Alon, E. Yom-Tov (2015) "Early Detection of Fraud Storms in the Cloud" *Accepted for publication in the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD) 2015*

Workshop Articles

E. Yom-Tov (2003) "Evidence for learning of force fields in EEG potentials related to movement" *Control and Biological systems: The path to the robo-sapiens age - Israeli Association for Automatic Control*.

E. Yom-Tov, S. Fine, D. Carmel, A. Darlow (2005) "Metasearch and Federation using Query Difficulty Prediction", *28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2005) Workshop on Query prediction and its applications*

S. Coptly, S. Ur, E. Yom-Tov (2005) "Evaluating the Reverse Greedy Algorithm", *Fifth Haifa Workshop on Interdisciplinary Applications of Graph Theory, Combinatorics and Algorithms*

E. Yom-Tov, G. F. Inbar (2005) "Evidence for a decision making process at the cortical level during adaptation to changing environments" *Computational Motor Control Workshop 2005, Ben Gurion University*

E. Yom-Tov (2005) "A parallel training algorithm for large scale support vector machines" *Neural Information Processing Systems (NIPS) Workshop on Large Scale Kernel Machines 2005, Whistler, Canada*

E. Yom-Tov, M. Rosen-Zvi, Y. Xu, J. Wong (2006) "Towards root-cause analysis in compression-based similarity" *Neural Information Processing Systems (NIPS) 2006 Workshop on Revealing Hidden Elements of Dynamical Systems, Whistler, Canada*.

S. Sabato, E. Yom-Tov, A. Tsherniak, S. Rosset (2007) "Analyzing System Logs: A New View of What's Important", *Second Workshop on Tackling Computer Systems Problems with Machine Learning Techniques (SysML07)*

E. Yom-Tov, Y. Aridor (2007) "A self-optimized job scheduler for heterogeneous server clusters" *Proceedings of the 13th Workshop on Job Scheduling Strategies for Parallel Processing (JSSPP 2007)*. Published in: E. Frachtenberg, U. Schwiegelshohn (Eds.) (2008) *Job Scheduling Strategies for Parallel Processing*, Lecture Notes in Computer Science 4942, pp. 169-187, Springer.

E. Amitay, S. Yogev, E. Yom-Tov (2007) "Serial Sharers: Detecting Split Identities of Web Authors" *SIGIR Workshop on Plagiarism Analysis, Authorship Identification, and Near-Duplicate Detection (PAN 2007)*

E. Yom-Tov, D. Pelleg, R. Natarajan, E. Pednault, N. Slonim (2007) "Large scale clustering and regression using the IBM Parallel Machine Learning toolbox" *Neu-*

ral Information Processing Systems (NIPS) 2007 Workshop on Efficient Machine Learning, Whistler, Canada.

H. Leather, E. Yom-Tov, M. Namolaru, A. Freund (2007) "Automatic Feature Generation for Setting Compilers Heuristics" *2nd Workshop on Statistical and Machine learning approaches to ARchitectures and compilaTion (SMART'08), Goteburg, Sweden.*

K. Dyagilev, E. Yom-Tov, S. Mannor (2010) "Generative Models for Rapid Information Propagation" *SIGKDD Workshop on Social Media Analytics (SOMA), Washington, DC*

S. Moldovan, E. Muller, Y. Richter, E. Yom-Tov (2010) "Opinion Leadership in Small Groups" *2nd Workshop on Information in Networks (WIN), New York University, New York, USA*

J. Lehmann, M. Lalmas, R. Baeza-Yates, E. Yom-Tov (2013) "Networked User Engagement" *ACM CIKM Workshop on User Engagement, San Francisco, USA*

S. Dori-Hacohen, E. Yom-Tov, J. Allan (2015) "Navigating controversy as a complex search task" *Accepted for publication in the ECIR 2015 workshop on Supporting Complex Search Tasks*

Other

E. Yom-Tov (1999) "A keyboardless computer (In Hebrew)". *Haaretz special edition on Hi-Tech*, December 1999: 120-122.

R. El-Yaniv, T. Kotek, D. Pechyony, E. Yom-Tov (2006) "On Multiclass Classification via a Single Binary Classifier", *IBM Research Report H-0241.*

R. El-Yaniv, D. Pechyony, E. Yom-Tov (2006) "Superior Multi-Class Classification through a Margin-Optimized Single Binary Problem", *IBM Research Report H-0243.*

E. Yom-Tov, Y. Aridor (2006) "Improving Resource Matching through Estimation of Actual Job Requirements", *IBM Research Report H-0244.*

U. Aharoni, A. Ghoting, E. Pednault, D. Pelleg, H. Toledano, R. Natarajan, E. Yom-Tov (2006) "IBM Parallel Machine Learning Toolbox", *Neural Information Processing Systems (NIPS) Demonstration*

E. Yom-Tov, U. Aharoni, A. Ghoting, E. Pednault, D. Pelleg, H. Toledano, R. Natarajan (2007) "An introduction to the IBM Parallel Machine Learning Toolbox" *IBM developerWorks.*

H. Toledano, E. Yom-Tov, D. Pelleg, E. Pednault, R. Natarajan (2008) "Support Vector Machine Solvers: Large-scale, Accurate, and Fast (Pick Any Two)" *IBM Research Report H-0260.*

D. Pelleg, E. Yom-Tov, E. Gabrilovich (2015) "On the Effect of Human-Computer Interfaces on Language Expression" *arXiv 1505.00092.*

Patents

E. Yom-Tov (2001) "Monitoring Vital Signs During Labor" *Israeli patent number 143420*.

E. Yom-Tov, S. Fine, D. Carmel, A. Darlow (2004) "Prediction of query difficulty for a generic search engine" *U.S. patent number 7406462*

E. Yom-Tov, Y. Aridor, R.E. Harper (2005) "Method and system for scheduling of jobs" *U.S. patent number 7958509*

S. Ur, E. Yom-Tov (2006) "List display with redundant text removal" *U.S. patent number 7765475*

E. Yom-Tov, S. Fine, D. Carmel, A. Darlow and D. Pelleg (2006) "Analyzing the Ability to Find Textual Content" *U.S. patent number 7792830*

E. Amitai, S. Yogev, E. Yom-Tov (2007) "Method and system for detection of authors" *U.S. patent number 7752208*

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E. Yom-Tov, M. Tennenholtz, M. Schain (2014) "Future meeting evaluation using implicit device feedback" *U.S. patent request 14/510891*

Awards

- Technion award for excellence in teaching.
- Winner of the 2005 IBM Pat Goldberg Memorial Best Paper Award in Computer Science, Electrical Engineering and Math.
- Recipient of the Best Paper award at the 28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2005).
- IBM Technical Achievement Group Award (2005).
- IBM Research Division Award (2006).
- IBM Research Division Accomplishment (2006).

- Named IBM Master Inventor (2007).
- Recipient of the IEEE Transactions on Neural Systems and Rehabilitation Engineering (TNSRE) Best Paper Award 2010.
- Recipient of an Honorable Mention Award at the 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2011).
- Recipient of an IBM Outstanding Technical Achievement Award (for work on Query Difficulty) (2010) – Awarded after I left IBM.
- Recipient of an IBM Outstanding Technical Achievement Award (for work on Social Analytics) (2011) – Awarded after I left IBM.

Additional professional activities

- Senior PC for SIGIR, AACL, CIKM, AISTATS, and Digital Health.
- Program committee member (reviewer) for ECIR, ICML, EMNLP, NIPS, KDD, CIKM, SIGIR, and WSDM.
- Senior Member of the IEEE and member of the ACM.
- Co-organized the NIPS 2006 workshop on Revealing Hidden Elements of Dynamical Systems.
- Co-organized the NIPS 2007 workshop on Learning with Large Data.
- Co-organized the ICML 2008 workshop and Pascal Large Scale Learning Challenge.
- Co-organized the ICML 2010 workshop on Social Analytics.
- Co-organized the SIGIR 2013 workshop on Learning about Health and Medicine from User Generated Content.
- NSF panel reviewer.

Invited talks I gave the open keynote at Medicine 2.0 in 2014.

I have given invited talks at Xerox PARC Forum, MSR Machine Learning Summit, Google, LinkedIn, Technion Computer Engineering 2013, Carnegie Mellon University (CMU), New York University (NYU), Columbia, Yale, Emory, Georgia Institute of Technology, University of Illinois at Urbana-Champaign (UIUC), University of Massachusetts, Boston Children’s Hospital, Technion, Tel-Aviv University, Bar-Ilan University, and the Hebrew University.

Languages I am fluent in Hebrew and English and I have a basic knowledge of Arabic.

Computer Languages

I am proficient in Matlab, Pig, and C++. Over the years I’ve programmed in Assembler, C, Pascal, PL1, Perl, and Visual Basic.

Voluntary organizations

I am a member of Ba’shaar, an Academic Community for the Israeli Society. In this framework I give lectures aimed at trying to draw high school students to the sciences.