

Curriculum Vitae

YOSEPH BARASH

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Dept. of Computer Science
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Education

1999-05 Direct Ph.D., School of Computer Science & Engineering, Hebrew University,
 Advisor: Prof. Nir Friedman
 Title: "Unified Models for Regulatory Mechanisms"
1996-98 B.Sc. in Computer Science and Physics, Hebrew University
 Jerusalem, Israel. Graduated Magna Cum Laude.

Honors & Awards

2006 Charles H. Best postdoctoral fellowship recipient, University of Toronto
 Renewed: 2007
2005 Best scientific poster award, Hebrew University
2002 Levi Eshkol fellowship recipient, Israeli Ministry of Science.
 Renewed: 2003, 2004
2002 Best poster award, the Annual Israeli Bioinformatics Symposium
2000 Leibniz award for M.Sc. research study, Hebrew University
1998 Graduated Cum Laude Magna, Hebrew University
1997 Dean's List for undergraduate achievements, Faculty of Science,
 Hebrew University

Employment

- 11/2005- Postdoc, Dept. of CS, ECE, Centre for Cellular and Biomolecular Research,
University of Toronto, Advisors: Prof. Brendan Frey, Prof. Ben Blencowe
- 2004-05 Lecturer, Introduction to Computational Biology course,
Hebrew University
- 2003 Teaching assistant (frontal), Programming Lab A course (OOD,C++,STL),
Hebrew University
- 2002 Teaching assistant (frontal), Information Theory course,
Hebrew University
- 2002 Microarray gene expression analysis (joint research),
Functional Genomics Unit, Tel Hashomer Hospital
- 1999-01 Teaching assistant (frontal), Data Structures, Algorithms, OOD programming,
Hebrew University
- 1997-98 Algorithm and software developer - Java programming
netPost™ Inc
- 1991-95 Army Officer (Major), Chief of an operational wing in an air force unit,
Commanding officer in a paratroops reconnaissance unit,
An infantry officer instructor in the Officer's Academy
IDF

References

- Professor Brendan Frey, Department of Electrical and Computer Engineering, University of Toronto,
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Tel. +1 416 978 7001
- Professor Benjamin Blencowe, Centre for Cellular and Biomolecular Research
E-mail: b.blencowe@utoronto.ca Website: <http://www.utoronto.ca/intron/>
Tel. +1 416 978 3016
- Dr. Naftali Kaminski, University of Pittsburgh Medical Center,
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Tel. +1 412 841 3876
- Prof. Nir Friedman, School of Computer Science and Engineering, Hebrew University,
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Community Activities and Contributions:

Professional:

- **Paper Review** (2003 - present)

Journals: Nature, Genes and Development, Bioinformatics, Journal of
Bioinformatics and Computational Biology, Journal of Machine Learning

Research (JMLR)

Conferences: International Conference on Computational Molecular Biology (RECOMB), European Conference on Computational Biology (ECCB), International Conference on Intelligent Systems for Molecular Biology (ISMB)

• **Student Supervisor**

Hebrew University (2002-2005)

Supervised numerous undergraduates in their final computational biology (CSLS) projects. Several of these (Noa Shefi, Gali Niv and Omri Peleg) later extended their work to M.Sc. and PhD research in computational Biology and machine learning.

• **Project for programming skills improvement**

Hebrew University (2002)

Initiated, in conjunction with Prof. Danny Dolev, head of the CSE school at the Hebrew University, a project to update the curriculum for B.Sc. in CS. Aiming to improve the level of programming skills, we researched the curriculum in other leading universities in the U.S and interviewed academy and industry figures. Conclusions from this project were adopted in following years.

Personal:

• **Traditional Karate Training/Teaching**

Israel/Canada (1982-3,1985-7, 1999 - current)

Trained in traditional Okinawan Goju Ryu Karate for more then a decade. Traveled to Okinawa to train with the head master of our style and with people from all over the world. Currently hold the rank of Nidan (black belt, 2nd Dan). As such, have helped instruct beginners and youth and organized special seminars for advanced students. Regard traditional Karate practice as a major contributor for a healthy, balanced, life both physically and mentally.

Presentations

Speaker:

2008	Annotation of the Human Genome for Disease Study, Genome Canada,
2004	Inter. Conference on Intelligent Systems for Molecular Biology (ISMB), Scotland
2003	European Science Foundation (ESF) exploratory workshop, Spain
2003	Inter. Conference on Computational Molecular Biology (RECOMB), Germany
2001	Workshop on Algorithms in Bioinformatics (WABI), Denmark

Poster:

2008	Inter. Conf. on intelligent systems for molecular biology (ISMB), Canada
2007	Systems Biology, Cold Spring Harbor Laboratory (CSHL), USA
2005	Inter. Conf. on intelligent systems for molecular biology (ISMB), USA
2002	Inter. Conference on Computational Molecular Biology (RECOMB), USA
2001	Inter. Conf. on intelligent systems for molecular biology (ISMB), Denmark

Refereed Papers

- **Barash Y.**, Calarco J. A., Pan Q., Chaudhry S., Shair O., Gao W., Blencowe B.J, Frey B.J. “Revealing the Code Governing Tissue-Regulated Alternative Splicing”
Submitted
- *Aznarez I., ***Barash Y.**, Shai O., He D., Zielenski J., Tsui L.C., Parkinson J., Frey B.J., Rommens J.M., and Blencowe B.J., “A systematic analysis of intronic sequences downstream of 5’ splice sites reveals a widespread role for U-rich motifs and TIA1/TIAL1 proteins in alternative splicing regulation”,
Genome Research 18(8):1247-58, 2008 (***equal first authors**)
- *Fagnani M., ***Barash Y.**, Ip J., Misquitta C., Pan Q., Saltzman A.L., Shai O., Lee L., Rozenhek A., Mohammad N., Willaime-Morawek S., Babak T., Zhang W., Hughes T.R., van der Kooy D., Frey B.J., Blencowe, B.J, “Functional coordination of alternative splicing in the mammalian central nervous system”,
Genome Biology, 8, R108, 2007 (***equal first authors**)
- **Barash Y.**, Elidan G., Kaplan T., Friedman N., “CIS: Compound Importance Sampling Method for Protein-DNA Binding Site p-value Estimation”
Bioinformatics 20(6):839-46, 2004
- Marion R.M., Regev A., Segal E., **Barash Y.**, Koller D., Friedman N. and O’Shea E.K. “Sfp1 is a Stress- and Nutrient-Sensitive Regulator of Ribosomal Protein Gene Expression” Proc. National Academy of Sciences USA, 101:14315-22, 2004.
- **Barash Y.**, Elidan G., Kaplan T., Friedman N., “CIS: Compound Importance Sampling Method for Protein-DNA Binding Site p-value Estimation”
Proceedings of the 12th International Conference on Intelligent Systems for Molecular Biology (ISMB), 2004
- **Barash Y.**, Dehan E., Krupsky M., Franklin W., Geraci M., Friedman N. and Kaminski N. “Comparative Analysis of Algorithms for Signal Quantitation from Oligonucleotide Microarrays”, Bioinformatics, 12;20(6):839-46, 2004
- **Barash Y.**, Elidan G., Kaplan T., Friedman N., “Modeling Dependencies in Protein-DNA Binding Sites” In Proc. Seventh Annual Inter. Conf. on Computational Molecular Biology (RECOMB), 2003
- **Barash Y.** and Friedman N. “Context-Specific Bayesian Clustering for Gene Expression Data”, Journal of Computational Biology, 9:169-191, 2002
- Segal E., **Barash Y.**, Simon I., Friedman N. and Koller D. “From Promoter Sequence to Expression: A Probabilistic Framework”
Proc. 6th Inter. Conf. on Computational Molecular Biology (RECOMB), 2002
- **Barash Y.**, Bejerano G. and Friedman N. “A simple hyper-geometric approach for discovering putative transcription factor binding sites”

Algorithms in Bioinformatics: Proc. First International Workshop, WABI 2001

• **Barash Y.** and Friedman N. “Context-Specific Bayesian Clustering for Gene Expression Data”, Proc. 5th Inter. Conf. on Computational Molecular Biology (RECOMB) 2001