Hilal Kazan

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Education

PhD., University of Toronto, Canada Sept 07 – present

Computer Science, Computational Biology Group
Research Interests: *Machine learning algorithms for computational biology*
Thesis: *Learning preferences of RNA-binding proteins using probabilistic models*
Advisor: Prof. Quaid Morris
Committee: Prof. Michael Brudno and Prof. Brendan Frey
Expected graduation date: June 2012

B.Sc., Sabanci University (SU), Turkey Sept 03 – June 07

Computer Science and Engineering
Graduation Project: *RNA secondary structure prediction using simulated annealing*
Advisors: Prof. Ugur Sezerman and Prof. Pierre Flener

Uppsala University, Sweden Jan 06 – June 06
Erasmus Exchange Student – Department of Information Technology

Relevant Experience

Microsoft Research, Cambridge, UK Sept 11 – Dec 11
Research Intern, worked on gene-environment interactions in asthma
Supervisor: Prof. Chris Bishop

Memorial Sloan Kettering Institute, New York City, USA July 06 – Sept 06
Summer undergraduate student, worked on prediction of microRNA targets with *miRanda*.
Supervisor: Prof. Chris Sander

Current Research Projects

Discovering sequence and structure elements in co-localized Drosophila mRNAs*. With Dr. Shankar Vembu (U of California, San Diego)*

Characterization of binding specificities of all human, fly and yeast RNA-binding proteins. *With Kate Cook, Dr. Deb Ray and Prof. Timothy R Hughes (Dept of Molecular Genetics, U of Toronto)*

Joint bayesian analysis of sub-phenotypes and epistatis. *With Recep Colak, Prof.Philip Kim, Dr.Anna Goldenberg (Dept of Computer Science, U of Toronto)*

Journal Publications

KB Cook, **H Kazan**, K Zuberi, Q Morris and TR Hughes (2010) RBPDB: a database of RNA-binding specificities. ***Nucleic Acids Research*** *39 (Database issue) D301-D308.*

H Kazan, D Ray, E Chan, TR Hughes and Q Morris (2010) RNAcontext: A new method for learning the sequence and structure binding preferences of RNA-binding proteins. ***PLoS Comput Biol*** *6(7): e1000832.*

D Ray*, **H Kazan*,** E Chan, LP Castillo, S Talukder et. al. (2009) Rapid and systematic characterization of the RNA recognition specificities of RNA-binding proteins. ***Nature Biotechnology****, 27: 667-670*
*co-first authors

Selected Conference Presentations

H Kazan, X Liu, W Jiao, HD Lipsitz, Q Morris (2011) Detailed binding preferences of RNA-binding proteins inferred from large-scale binding assays. McGill-Toronto Computation Molecular and System Biology Retreat, Montreal, Canada.

H Kazan, D Ray, E Chan, TR Hughes and Q Morris (2009) Learning the sequence and structure binding preferences of RNA-binding proteins from noisy affinity data. RECOMB Satellite on Regulatory Genomics, Boston, USA.

Q Morris, D Ray, **H Kazan**, B Blencowe, TR Hughes (2009) RNAcompete: a fast and inexpensive method for comprehensively assaying the binding preferences of RNA-binding proteins. ISMB Alternative Splicing Special Interest Group, Stockholm, Sweden.

H Kosucu(Kazan), P Flener, U Sezerman (2008) RNA secondary structure prediction using simulated annealing. Non-coding RNAs: Computational Challenges and Applications, Antalya, Turkey.

O Bodenreider, Z Coban, MC Doganay, E Erdem and **H Kosucu (Kazan)** (2008) A preliminary report on answering complex queries related to drug discovery using answer set programming. In Proc. of Applications of Logic Programming to Semantic Web and Web Service, Udine, Italy.

Teaching Assistantships and Supervision

-supervised two undergraduate students during Summer 2011

-Software Design (CSC207, U of Toronto, Fall 2008)
responsible for leading office hours, marking and writing assignment solutions.

-Intro. to Computer Programming (CSC108, U of Toronto, Fall 2007 and Fall 2008)
responsible for conducting tutorials, marking assignments and exams.

Scholarships and Achievements

-Grace Hopper Celebration of Women in Computing Scholarship Award, 2008

-University of Toronto Fellowship, 2007-2012

-SU Certificate of High Honor for 5 semesters, based upon GPA higher than 3.50

-SU Faculty of Engineering Sciences High Honor Scholarship, 2003-2007
includes full tuition and a monthly stipend

-Nationwide University Entrance Examination of Turkey, 2003
ranked 21st among 1.7 million applicants

Skills

Languages: English (fluent), Turkish (native),

Programming Languages: C/C++, Perl, Matlab, Python, R

Social Activities & Interests

-President of the Turkish Students Association, University of Toronto (Sept 10 – present)

-Captain of an intramural volleyball team, University of Toronto (Sept 10 –present)

-Civic Involvement Project (CIP) (2003-2004)

- Organized social activities for old people from Okmeydani nursing home, Turkey
- Educational volunteer, in TEGV, a foundation for non-formal education in Turkey
  Duties included teaching English and Math to children aged from 7-12

References available upon request