

# 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: August 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

Characterization of binding specificities of human and fly 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 epistasis. *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 21<sup>st</sup> 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