Maryam Abbasi

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RESEARCH INTERESTS
Bioinformatics, Multi-objective Problems, Sequence Alignment, Data Mining, Image Processing, Neural Network, System Modelling and Simulation, Genetic Programming, Artificial Intelligence

EDUCATION

Ph.D. Student, Department of Informatics Engineering, University of Coimbra, Coimbra, Portugal

- Thesis Proposal Topic: On Multi-objective Sequence Alignment: Formulation and Algorithms
- Supervisor: Professor Luis Paquete

M.Sc., Computer Science February 2008, **University of Tehran**, Tehran, Iran

- Thesis Topic: Study of Relation between the Maximum Pairs of Repeat in Genome Sequence and Doze of Ionizing Radiation
- Supervisor: Professor Hamed Seyed-Allaei
- Advisor: Professor Ali Masoudi-Nejad

B.Sc., Computer Science, February 2005, **University of Tehran**, Tehran, Iran

- Thesis Topic: Computational NeuroScience
- Supervisor: Professor Abbas Nowzari-Dalini

HONORS

- Awarded with a 3-year research grant in an international call within the project "Multiobjective sequence alignment" (PTDC/EIA-CCO/098674/2008), funded by the FCT, 2011.
- Among top 2% in the nation-wide computer science graduate school entrance examination, 2004.
- Selected for the first round of the 8th National Olympiad in Informatics, 1998.
- Selected for the first round of the 11th National Olympiad in Physics, 1998.

ACADEMIC EXPERIENCE

January 2011 to present

- University of Coimbra, Coimbra, Portugal
  Research on Multiobjective Sequence Alignment project
  Professor Luis Paquete.

January 2007 to January 2011

- Shahid Beheshti University (SBU), Tehran, Iran
  Work on analysis repeats of DNA sequence in radioresitance bacteria under supervision of Professor Hamed Seyed-allaei.
- Institute of Biophysics and Biochemistry (IBB), Tehran, Iran
  Implementation of "EGassembler": A genome-scale web based Bioinformatics service for analyzing curvature and repeats and CpGp in DNA (http://egassembler.hgc.jp/) , under supervision of Professor Ali Masoudi-Nejad

January 2006 to May 2006

- Institute of Biophysics and Biochemistry (IBB), Tehran, Iran
Implementation of software project "A new Dot Matrix design with a link to Vienna RNA folding program execution" under the supervision of Professor Dr. Goliaei.

November 2003 to September 2005

- University of Tehran
Member of MFS2K Team: Implementation of Neural Network, Heuristic and fuzzy algorithms and learning A-life under supervision of Professor Dr. Abbas Nowzari-Dalini.

August 2004 to November 2004

- University of Tehran
Member of the UTGA Team (University of Tehran Genetic Algorithms team) Working on Bio-Inspired Computing techniques. Implementation of "Genetic Algorithms" under supervision of Professor Dr. Hayedeh Ahrabian.

January 2004 to May 2004

- University of Tehran
Computer Design project under supervision of Assistant Professor Dr. Nowzari
- University of Tehran
Development of more than 10 Management Information Systems projects under supervision of Assistant Professor Dr. Emami

September 2003 to January 2004

- University of Tehran
Three computer simulation programming projects under supervision of Assistant Professor Dr. Salehi
- University of Tehran
Compiler Design project under supervision of Instructor Dr. Kargahi
- University of Tehran
More than 10 Data Storage and Retrieval programming projects under supervision of Professor Miss. AsnaAshari

June 2003 to September 2003

- Kaman Rayane Computer Company
A software programming project using Genetic Algorithms for an electronic project

PUBLICATIONS

BOOKS   Maryam Abbasi, "Digital Circut", Payam Noor Publication, April 2008.

JOURNAL ARTICLE

M. Abbasi, L. Paquete, A. Liefooghe, M. Pinheiro, P. Matias , "Improvements on bicriteria pairwise sequence alignment: algorithms and applications" Bioinformatics, 29(8):996-1003, 2013.
Maryam Abbasi. "Formal Languages and Biological Application". Gozaresh Computer magazine, issue No.172 of scientific monthly of Informatics Society of Iran (ISI), in computer section, on April 2007 edition.

CONFERENCE
PUBLICATIONS

- M. Abbasi, L. Paquete, F. Pereira and S. Schenker,"Local Search for Multi-criteria Multiple Sequence Alignment ", ICIBM conference, August 11-13, 2013.
- L. Paquete, M. Abbasi, M Pinheiro, P. Matias, "Algorithms and applications of biobjective pairwise sequence alignment" submitted to EURO-CBBM, 2012.
- M. Abassi, L. Paquete, M. Pinheiro, "Dynamic Programming Algorithms for Biobjective Sequence Alignment" , Bioinformatics Open Days, University of Minho, Portugal, March 2012.
- M. Abbasi, L.Paquete, A. Liefooghe, M.C. Dias, " Multiobjective sequence alignment: Formulation and Algorithms", 19th Annual International Conference on Intelligent Systems for Molecular Biology and 10th European Conference on Computational Biology (ISMB/ECCB 2001), Austria, 2011.
- M.Abbasi, H.Seyed-Allaei, "An algorithm to reconstruct damaged DNA's", International Workshop on Physical and Chemical Foundations of Bioinformatics Methods, Germany, 2007.
- A. Masoudi-Nejad,S. Movahedi, M.Abbasi, "CurvaRep: A genome-scale web based Bioinformatics service for analyzing curvature and repeats in DNA", IADIS International Conference, Applied Computing 2007,Salamanca, Spain, 2007.

PROFESSIONAL
EXPERIENCE

Teaching   **September 2007 to January 2011**

- "Linux and Web design" UAST, Tehran, Iran, Spring 2009.

- "Data Base, Computer Graphics and Programming C, C++" ,Computer Engineering Dept, Rodehen branch, Azad University, Tehran, Iran, Spring 2009.

- "Compiler, Computer Graphics and Programming Visual Basic" ,Computer Engineering Dept, Damavand branch, Azad University, Tehran, Iran, Spring 2009. "Data Structure, English Language", Computer Engineering Dept, West-Tehran branch, Azad University, Tehran, Iran, Spring 2009.

- "Data Base and Advanced Programming" Azad University, Rodehen branch, Computer Engineering Dept, Tehran, Iran , Fall 2008.

- "Compilers, Advanced Programming and Data Base" Azad University, Damavand branch, Computer Engineering Dept, Tehran, Iran , Fall 2008.

- "Data Base, Advanced Programming and Data Storage & Retrieval" Azad University, Rodehen branch, Computer Engineering Dept, Tehran, Iran , Spring 2008.

- "Data Base and Logic Circuits" Azad University, Varamin branch, Computer Engineering Dept, Tehran, Iran , Fall 2007.

- Teacher Assistant, "Principles of Bioinformatics", Institute for Biochemistry and Biophysics (IBB), University of Tehran, Tehran, Iran, Spring 2006.

Supervision   **Fall 2008**

- Advisor of final projects of bachelor's degree in Azad University, Rodehen branch, Computer Engineering Dept, Tehran, Iran , Fall 2008.

- Advisor of iAuR Team ,33rd ACM International Collegiate Programming Contest, 10th Asian Regional Contest in Iran, December 25-26 2008.

Work Experience   **April 2004 to Peresent**

- R&D Manager and Senior Software Developer, 0&1 Company, Tehran, Iran,

RESEARCHES,
SEMINARS,
CONFERENCES,
WORKSHOPS,   **January 2013 to Peresent**
SCHOOLS

- Presenting "Advances in multiobjective sequence alignment" lecture, 26 June 2013, under supervision of Professor Luis Paquete, University of Coimbra, Portugal.

- Participation in the Artificial Evolution Summer School (AESS2013) on Evolutionary algorithms, metaheuristics, Continuous and combinatorial optimisation, 10–14 June 2013, Quiberon, France.

January 2011 to December 2012

- Presenting "Algorithms and applications of biobjective pairwise sequence alignment", 19 December 2012,Department of Mathematics, University of Coimbra, Portugal.
- Voluntary work at Bridges conference,27-31 July 2011, University of Coimbra, Portugal.
- Presenting "On Multicriteria Sequence Alignment" lecture , April 2011 under supervision of Professor Luis Paquete, University of Coimbra, Portugal.
- Presenting "Bi-objective Sequence Alignment Approaches" lecture, March 2012 under supervision of Professor Luis Paquete, ECOS Group, University of Coimbra, Portugal.

January 2008

- Presenting "DNA Computing and Traveling Salesmen Problem (TSP)" seminar under supervision of Professor Dr. Mohammad Nori, University of Tehran, Iran.

July 2007

- Participation in the USU-CMU Summer School on Dependable Computer Systems 2007, University of Lugano, Lugano, Switzerland.

May 2007

- Presenting "WAVEFRONT (parallel algorithm)" seminar under supervision of Professor Dr. Hayedeh Ahrabian, university of Tehran, Iran.

January 2006 to May 2006

- "Bioinformatics Data Bases" research project under supervision of professor Dr.Goliaei, University of Tehran, Iran.

TECHNICAL SKILLS Programming: C, C++, Visual C++, C#, Java, Visual J++, Pascal, Visual Basic, Perl, Perl-CGI, Ruby, R, ASP.Net, HTML, XML, SQL Server, MySQL

Applications: TEX, LATEX, BIBTEX, Matlab, Microsoft Office, and other common productivity packages for Windows, OS X, and Linux platforms

Operating Systems: Microsoft Windows XP/2000, Linux

Names and Contact Information of two Referees

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Hamed Seyed-Allaei, Ph.D.
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