

Eman Mostafa Badr

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CONTACT INFORMATION

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EDUCATION

Ph.D., Computer Science, Virginia Tech, May 2015.

Dissertation: **Identifying Splicing Regulatory Elements with de Bruijn Graphs**

M.Sc., Computer Science, Cairo University, 2009.

Thesis: **An Arabic Online Handwritten Recognition System for Pen-Based Devices**

B.Sc., Computer Science, Cairo University, 2004.

RESEARCH INTERESTS

Algorithms, graph theory, bioinformatics, computational biology, data mining, machine learning, and pattern recognition.

PROFESSIONAL EXPERIENCE

2014 – 2015 Graduate research assistant, Virginia Tech, Blacksburg, VA, USA

2005 – 2011 Teacher assistant, Computer Science, Cairo University., Cairo, Egypt

2008 – 2011 Software researcher at Cit Mobidiv company. Cairo, Egypt

2007 – 2008 Research assistant, (Artificial Tutor For Handwriting Teaching) project, a research cooperation between Cairo University and Cairo Microsoft Innovation Center(CMIC), Cairo, Egypt

2004 – 2006 Junior software developer in Imagnet software company, Cairo, Egypt

JOURNAL PAPERS

- [1] “Computational identification of tissue specific splicing regulatory elements in human genes from RNA-Seq data”, Eman Badr, Mahmoud ElHefnawi, and Lenwood Heath, submitted, April 2015.
- [2] “CoSREM: A graph mining algorithm for the discovery of combinatorial splicing regulatory elements”, Eman Badr and Lenwood Heath, submitted, April 2015.
- [3] “Identifying splicing regulatory elements with de Bruijn graphs”, Journal of Computational Biology, Eman Badr and Lenwood Heath, November 2014.
- [4] “A system to automatically classify and name any individual genome-sequenced organism independently of current biological classification and nomenclature”, Haitham Marakeby, Eman Badr , Hanaa Torkey , Yuhyun Song, Scotland Leman, Caroline L. Monteil, Lenwood S. Heath, and Boris A. Vinatzer , PLOS ONE, February 2014.
- [5] “A study on different feature extraction techniques/ classifiers for an Arabic online handwriting recognition system”, Eman Badr, Hazem Y. Abdelazeem, and Sanaa Elola, Egyptian Informatics Journal, Cairo University, 2009.

CONFERENCE PAPERS

- [1] “The ethics of equipoise in clinical trials”, Eman Badr, STGlobal conference, April 2015.
- [2] “Artificial tutor for Arabic handwriting training”, Sherif Abdou, Aly Fahmy, Ibrahim Hosney, and Eman Badr, proceedings of the second international conference on Arabic language resources and tools, Medar Conference, April 2009.

POSTERS

- [1] “Probabilistic gene coordination: A new approach to infer co-regulation between amino acid transporters and metabolic enzymes”, Eman Badr, Guillaume Pilot, and Lenwood Heath, ACM Richard Tapia Celebration of Diversity in Computing, February 2014.
- [2] “Probabilistic gene coordination examining amino acid transporters’ regulation”, Grace Hopper Conference, Eman Badr, Guillaume Pilot, and Lenwood Heath, October 2013.
- [3] “A computational model to infer co-regulation between amino acid transporters and metabolic enzymes”, Graduate Student Assembly symposium, Virginia Tech, Eman Badr, Guillaume Pilot, and Lenwood Heath, March 2013.

CERTIFICATES

NIH responsible conduct of research training requirement.

Training in human subjects protection on the following topics:

Historical basis for regulating human subject research.

Belmont report.

Federal and Virginia Tech regulatory entities, policies and procedures.

HONORS AND AWARDS

Scholarship from Conference on Data Analysis (CoDA) to attend CoDA 2014, USA, New Mexico, March, 2014.

Scholarship from ACM Richard Tapia Celebration of Diversity in Computing to attend Tapia conference, USA, Seattle, 2014.

Scholarship from the Institute for African-American Mentoring in Computing Sciences to attend IAAMCS

Distinguished Fellowship Writing Workshop, USA, Seattle, February, 2014. Scholarship from Grace Hopper Celebration of Women in Computing (GHC) to attend GHC conference, USA, Minnesota, 2013.

Scholarship from the Computer Research Association's Committee on the Status of Women in Computing Research (CRA-W) to attend CRA-W Grad Cohort Workshop, USA, Boston, 2013.

PhD scholarship, the Egyptian Cultural and Education Bureau. (August 2011 - 2013).

M.Sc. scholarship, Cairo University (Sep. 2006 - Jan. 2009).

Certificate of Honor, graduated with a grade of Excellent with honor, June 2004.

SERVICE

March 2015 Participated in the annual Graduate Recruiting Weekend where I presented a poster to showcase the current research in the Computer Science department, Virginia Tech.

2013 – 2014 Advertising chair, Graduate Council, Virginia Tech.

March 2014 Poster presenter at the annual Graduate Recruiting Weekend, Virginia Tech.

March 2014 Peer reviewer, the annual Graduate Student Assembly symposium, Virginia Tech.

Feb. 2014 Volunteered as a supervisor at Kids' Tech University program, Virginia Tech.

March 2013 Poster presenter at the annual Graduate Recruiting Weekend, Virginia Tech.