

HUSSEIN MOHSEN

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New Haven, CT 06511, United States

EDUCATION

Yale University, New Haven, CT, USA

Doctor of Philosophy (PhD) in Computational Biology & Bioinformatics

Aug 2016-present

Masters of Arts (MA) in History of Science and Medicine

Jan 2019-present

Nicholas Jabr Fellowship, Gruber Science Fellowship

GPA: 3.91/4.00

Indiana University, Bloomington, IN, USA

Aug 2013-May 2015

Master of Science (MS) in Computer Science (Bioinformatics)

Fulbright Scholarship

GPA: 4.00/4.00

Newcastle University, Newcastle upon Tyne, UK

Sep 2012-Aug 2013

Postgraduate Exchange Student at the School of Computing Science

Erasmus Mundus Scholarship

First Class Honours Average (*scaled GPA: 3.86/4.00*)

Lebanese American University, Beirut, Lebanon

Sep 2008-Jun 2011

Bachelor of Science (BS) in Computer Science with High Distinction

Merit Scholarship

GPA: 3.84/4.00, Major GPA: 3.91/4.00

WORK EXPERIENCE

Indiana University, Bloomington, IN, USA - Teaching Fellow

Jan 2019-present

Instruction and grading of assignments of *Biomedical Data Science* course

Lattice Engines, Inc., San Mateo, CA, USA - Research Engineer

Jun 2015-Jul 2016

Machine Learning R&D of data imputation and reduction techniques for dense datasets

Co-Implemented a scalable, memory unbounded modeling platform

Indiana University, Bloomington, IN, USA - Associate Instructor

Aug 2013-May 2015

Instruction and grading of assignments of Data Mining and Discrete Mathematics courses

CCT International, Beirut, Lebanon - Software Developer

Mar 2011-Aug 2012

Co-developed 6 core software modules of Visual C3D Project used in mega-construction firms

ITX International, Beirut, Lebanon - Web Development Intern

Jan-Mar 2011

Developed and tested 2 business web applications

SKILLS

Programming: Java, Python, R statistical language, MATLAB, C/C++, C#, MPI, POSIX

Databases: SQL, MySQL, Microsoft Access

Web Development: Javascript, PHP, HTML, CSS

Operating Systems: UNIX, Microsoft Windows

Other: Hadoop, LaTeX, Git, SVN, Adobe Photoshop, Illustrator, and InDesign

PUBLICATIONS

Papers

[1] J. Warrell, **H. Mohsen**, and M. Gerstein (2018). “Rank Projection Trees for Multilevel Neural Network Interpretation,” *NeurIPS Machine Learning for Health Workshop (NeurIPS ML4H) 2018*, Montréal, Canada.

[2] S. Lou, K.A. Cotter, T. Li, J. Liang, **H. Mohsen**, J. Liu, J. Zhang, S. Cohen, J. Xu, H. Yu, M. Rubin, and M. Gerstein (2018). “GRAM: A generalized model to predict the molecular effect of a non-coding variant in a cell-type specific manner,” *bioRxiv* doi: <https://doi.org/10.1101/482992>.

[3] M. Amodio, K. Srinivasan, D. van Dijk, **H. Mohsen**, K. Yim, R. Muhle, K. R. Moon, S. Kaech, R. Sowell, R. Montgomery, J. Noonan, G. Wolf, and S. Krishnaswamy (2019), “Exploring Single-Cell Data with Multitasking Deep Neural Networks,” *bioRxiv* doi: <https://doi.org/10.1101/237065>, January 2019.

[4] **H. Mohsen**, H. Tang, and Y. Ye, “Improving De Novo Metatranscriptome Assembly via Machine Learning Algorithms,” *International Journal of Computational Biology and Drug Design*, Vol. 10, Issue 2, pp. 91-107.

[5] **H. Mohsen**, H. Kurban, K. Zimmer, M. Jenne, and M. Dalkilic, “Red-RF: Reduced Random Forests using priority voting & dynamic data reduction,” in *Proceedings of the 4th IEEE International Congress on Big Data (IEEE BigData Congress’2015)*, New York, NY, June/July 2015.

[6] **H. Mohsen**, “A Model to Measure Inter-communication between Segregated Communities,” in *Proceedings of the 2014 IEEE International Conference on Behavioral, Economic and Social Computing (IEEE BESSC’2014)*, Shanghai, China, October/November 2014.

[7] **H. Mohsen**, H. Kurban, M. Jenne, and M. Dalkilic, “A New Set of Random Forests with Varying Dynamic Data Reduction and Voting Techniques,” in *Proceedings of the 2014 IEEE International Conference on Data Science and Advanced Analytics (IEEE DSAA’2014)*, Shanghai, China, October/November 2014.

[8] N. Mansour and **H. Mohsen**, “Computational Evaluation of Protein Energy Functions,” in *Proceedings of the 10th International Conference on Intelligent Computing (ICIC’2014), Lecture Notes in Computer Science: Intelligent Computing in Bioinformatics*, Vol. 8590, Springer-Verlag, Taiyuan, China, August 2014.

[9] **H. Mohsen**, M. Fawaz, and K. Jahed, “Multi-Purpose Speech Recognition and Speech Synthesis System,” in *IEEE Multidisciplinary Engineering Education Magazine (IEEE MEEM)*, Vol. 6, Issue 4, pp. 22-27, December 2011.

Op-Ed

H. Mohsen (2017, February 06). The Agitating Sprawl of AI. *Yale Daily News*, Opinion Page.

AWARDS & HONORS

3rd place, 2018 DataHack@Yale	Apr 2018
Nicholas Jabr Fellowship	2016-present
Gruber Science Fellowship	2016-present
Awarded by Gruber Foundation to the most highly ranked applicants to Yale PhD programs in the life sciences, cosmology, and astrophysics	
Fulbright Scholarship	2013-2015
Master's scholarship by US Department of State	
Erasmus Mundus Scholarship	2012-2013
One-year Postgraduate exchange scholarship by European Union EACEA Commission	
LAU Merit Scholarship	2008-2011
Undergraduate scholarship by Lebanese American University (Selectivity rate < 0.2%)	
2nd rank, Nokia-NNA contest for mobile application development in Lebanon	Jul 2010
Winner of Extreme Programmer Award, ACM LCPC Contest, Beirut, Lebanon	Jul 2010
Winner of Best Presentation Award	May 2011
<i>Third Undergraduate Research Conference on Applied Computing (URC'11), Dubai, U.A.E.</i>	
Presentation title: Multi-Purpose Speech Recognition and Speech Synthesis System	
More than 120 competing projects from MENA region universities. Prize share: 1/5.	
Winner of Software Design™ Award	Oct 2011
Best capstone project in Lebanon in 2011. Prize share: 1/2.	
Organized by Software Design™ Consulting Group, Beirut, Lebanon	
More than 50 competing capstone projects from universities across Lebanon	
Winner of Best Capstone Project Award at LAU (class of 2011)	Jul 2011
Lebanese American University Honor List	2009-2011