

HUSSEIN MOHSEN

hussein.mohsen@yale.edu | <http://www.husseinmohsen.com>

EDUCATION

Yale University, New Haven, CT, USA **Aug 2016-present**

Departments of Molecular Biophysics & Biochemistry and Computer Science

Doctor of Philosophy (PhD) in Computational Biology & Bioinformatics

Specializations: Machine Learning and Cancer Genomics

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)

Emphasis: Machine Learning

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

Bioinformatics and Biology coursework and research

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 (Selectivity rate < 0.2%)

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

WORK EXPERIENCE

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
- Implemented with 2 co-workers 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**

- 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

Peer-Reviewed Papers

[1] 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, "Exploring Single-Cell Data with Multitasking Deep Neural Networks," *bioRxiv* doi: <https://doi.org/10.1101/237065>, December 2017.

[2] **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.

[3] **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.

[4] **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 BESC'2014)*, Shanghai, China, October/November 2014.

[5] **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.

[6] 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.

[7] **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-Eds

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

AWARDS & HONORS

Nicholas Jabr Fellowship	2016-present
Gruber Science Fellowship <ul style="list-style-type: none">• Awarded by Gruber Foundation to the most highly ranked applicants to Yale PhD programs in the life sciences, cosmology, and astrophysics	2016-present
Fulbright Scholarship <ul style="list-style-type: none">• Master's scholarship by US Department of State	2013-2015
Erasmus Mundus Scholarship <ul style="list-style-type: none">• One-year Postgraduate exchange scholarship by European Union EACEA Commission	2012-2013
LAU Merit Scholarship <ul style="list-style-type: none">• Undergraduate scholarship by Lebanese American University (Selectivity rate < 0.2%)	2008-2011
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 <ul style="list-style-type: none">• <i>Third Undergraduate Research Conference on Applied Computing (URC'11)</i>, Dubai, U.A.E.• Presentation title: Multi-Purpose Speech Recognition and Speech Synthesis System• More than 120 competing projects from MENA region universities. Prize share: 1/5.	May 2011
Winner of Software Design™ Award <ul style="list-style-type: none">• 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	Oct 2011
Winner of Best Capstone Project Award at LAU (class of 2011)	Jul 2011
Lebanese American University Honor List	2009-2011