

HAITHAM ASHOOR

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1252 Farmington Ave, Farmington, CT, 06032

CURRENT POSITION

Application Computational Scientist at **The Jackson Laboratory for Genomic Medicine**
10 Discovery Dr, Farmington, CT 06032

EDUCATION

King Abdullah University of Science and Technology (KAUST) **Thuwal, Saudi Arabia**
Ph.D. in Computer Science *Sep 2011 - May 2017*

King Abdullah University of Science and Technology (KAUST) **Thuwal, Saudi Arabia**
MS in Computer Science *September 2009 – August 2011*

University of Jordan **Amman, Jordan**
BS in Computer Engineering *October 2004 – August 2008*

EXPERIENCE

RIKEN Center for Life Science Technologies (CLST) **Yokohama, Japan**
Visiting PhD student *May 2015 - June 2015*

- Bioinformatics analysis for short and long non-coding RNAs (within FANTOM5 project)
- Mentor: Dr. Michiel de Hoon

Institut Curie **Paris, France**
Intern *June 2012 - August 2012*

- Developed HMCAN, a copy number aware ChIP-seq peak caller.
- Mentor: Dr. Valentina Boeva

IBM T.J. Watson Research Center **New York, USA**
Intern *Summer 2010 and Summer 2011*

- Implemented a parallel high performance middleware transport layer
- Mentor: Dr. James Sexton

TECHNICAL SKILLS

- **Programming and tools proficiency:** C++, Python, R, Matlab
- **Machine learning libraries and frameworks:** Scikit-learn, Weka, LibSVM
- **Databases:** MySQL and PostgreSQL
- **Operating Systems:** Linux, MacOSX, and Windows

DEVELOPED SOFTWARE AND DATABASES

- **HMCAN-diff:** method to detect changes in histone marks in cells with different genetic backgrounds.
www.cbrc.kaust.edu.sa/hmcan
- **HMCAN:** a method for detecting chromatin modifications in cancer samples using ChIP-seq data
www.cbrc.kaust.edu.sa/hmcan
- **DTS:** Dragon TIS spotter. a method to detect translation initiation site biological signal from DNA sequence.
www.cbrc.kaust.edu.sa/dts
- **DENDB:** an integrated human enhancers database
www.cbrc.kaust.edu.sa/dendb

PUBLICATIONS

1. **Ashoor H**, Louis-Brennetot C, Janoueix-Lerosey I, Bajic VB, Boeva V. HMCan-diff: a method to detect changes in histone marks in cells with different genetic characteristic. *Nucleic Acids Research* 2017 Jan 3. doi: 10.1093/nar/gkw1319.
2. Aranda M, Li Y, Liew YJ, Baumgarten S, Simakov O, Wilson MC, Piel J, **Ashoor H**, Bougouffa S, Bajic VB, Ryu T, Ravasi T, Bayer T, Micklem G, Kim H, Bhak J, LaJeunesse TC, Voolstra CR. Genomes of coral dinoflagellate symbionts highlight evolutionary adaptations conducive to a symbiotic lifestyle. *Scientific Reports* 2016 Dec 22. doi: 10.1038/srep39734.
3. Alam T, Uludag M, Essack M, Salhi A, **Ashoor H**, Hanks JB, Kapfer C, Mineta K, Gojobori T, Bajic VB. FARN: Knowledgebase of Annotated Functions of Non- coding RNA Transcript. *Nucleic Acids Research*. 2016 Oct 24. doi: 10.1093/nar/gkw973
4. Kulakovskiy IV, Vorontsov IE, Yevshin IS, Soboleva AV, Kasianov AS, **Ashoor H**, Ba-alawi W, Bajic VB, Medvedeva YA, Kolpakov FA, Makeev V. HOCOMOCO: expansion and enhancement of the collection of transcription factor binding sites models. *Nucleic Acids Research*. 2016 Jan 4;44(D1):D116-25. doi: 10.1093/nar/gkv1249.
5. **Ashoor H**, Kleftogiannis D, Radovanovic A, Bajic VB. DENdb: database of integrated human enhancers. *Database*. 2015 Sep 5. doi: 10.1093/database/bav085.
6. **Ashoor H**, Hérault A, Kamoun A, Radvanyi F, Bajic VB, Barillot E, Boeva V. HMCan: a method for detecting chromatin modifications in cancer samples using ChIP-seq data. *Bioinformatics*. 2013 Dec 1;29(23):2979-86. doi: 10.1093/bioinformatics/btt524.
7. Mora AM[†], **Ashoor H**[†], Jankovic BR[†], Kamau A, Awara K, Chowdhary R, Archer JA, Bajic VB. Dragon TIS Spotter: an Arabidopsis-derived predictor of translation initiation sites in plants. *Bioinformatics*. 2013 Jan 1;29(1):117-8. doi: 10.1093/bioinformatics/bts638. ([†] equally contributing first author)
8. **Ashoor H**, Mora AM, Awara K, Jankovic BR, Chowdhary R, Archer JAC, Bajic VB. Recognition of Translation Initiation Sites in Arabidopsis Thaliana, *Chapter 5 in Systemic Approaches in Bioinformatics and Computational Systems Biology: Recent Advances*, Eds. Paola Lecca, Dan Tulpan, Kanagasabai Rajaraman, IGI Global, 2012

LANGUAGES

- **Arabic:** Native speaker
- **English:** Proficient

ACHIEVEMENTS AND AWARDS

- Academic Excellence Award, KAUST 2012 - 2013 and 2013 - 2014
- KAUST Discovery Scholarship and Fellowship August 2008