

Academic Resume



Somayah Albaradei

Assistant Professor, Computer Science Department

I'm an Assistant Professor in the CS department specializing in artificial intelligence (AI) and bioinformatics. My research interest is in the intersection area between computer science and biology. My current research includes AI and health informatics, machine/deep learning modeling, drug repositioning, diagnostic, and information integration.

Contact Information.

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Highest Degree.

2022, PhD, Computer Science, KAUST, Saudi Arabia.

Academic and Professional Experiences.

1. **2017 - 2018**
Teacher Assistant, KAUST, KAUST.
2. **2014 - 2015**
Lecturer, Jeddah, KAU.
3. **2010 - 2011**
Teacher Assistant, Jeddah, KAU.

Research Interests.

Deep learning, Machine learning, Artificial Intelligence, Bioinformatics.

Teaching Interests.

Machine learning, Bioinformatics, Applied Math, Artificial Intelligence, Data Science.

Certifications and Trainings.

1. Leadership development.
2. Digital Attaa, Certificate.
3. Trainer; Mawhiba, Certificate.
4. THREE MINUTE THESIS, KAU, Certificate..
5. Understanding Cancer Metastasis an online non-credit course authorized by Johns Hopkins University.
6. Women in Science and Engineering (WISE) 2023 conference at King Abdullah University of Science and Technology (KAUST).
7. BEAVER EGYPT THE 19 BEBRAS TASK WORKSHOP, Certificate.
8. Winter Enrichment program,KAUST, Certificate.
9. Jeddah Al-Ajm Hackathon, Jeddah University, Certificate.
10. Anfaeuhum Certificate.
11. Ask Questions to Make Data-Driven Decisions, Google, Certificate.
12. Foundations: Data, Data, Everywhere, Google, Certificate.
13. Inspiring and Motivating Individuals, University of Michigan, Certificate.
14. Intelligence Artificial art in the creative art industry, KAU, Certificate.

Social, Scientific and Professional Affiliation.

1. 2018-2022, Women in data science, KAUST.

Excellence Awards and Patents.

1. 2018, Interior, ePoster Competition, KAUST.

Publications.

1. Maha A. Thafar, Somayah Albaradei, Mahmut Uludag, Mona Alshahrani, Takashi Gojobori, Magbubah Essack, Xin Gao, "Oncortt: Predicting Novel Oncology-Related Therapeutic Targets Using Bert Embeddings And Omics Features", *Frontiers In Genetics*, vol: 14, 2023.
DOI: [10.3389/fgene.2023.1139626](https://doi.org/10.3389/fgene.2023.1139626)
2. Hind Alamro, Maha A. Thafar, Somayah Albaradei, Takashi Gojobori, Magbubah Essack, Xin Gao, "Exploiting Machine Learning Models To Identify Novel Alzheimer'S Disease Biomarkers And Potential Targets", *Scientific Reports*, vol: 13, 2023.
DOI: [10.1038/s41598-023-30904-5](https://doi.org/10.1038/s41598-023-30904-5)
3. Somayah Albaradei, Abdurhman Albaradei, Asim Alsaedi, Mahmut Uludag, Maha A. Thafar, Takashi Gojobori, Magbubah Essack, Xin Gao, "Metastasisite: Predicting Metastasis To Different Sites Using Deep Learning With Gene Expression Data", *Frontiers In Molecular Biosciences*, vol: 9, 2022.
DOI: [10.3389/fmolb.2022.913602](https://doi.org/10.3389/fmolb.2022.913602)
4. Maha A. Thafar, Mona Alshahrani, Somayah Albaradei, Takashi Gojobori, Magbubah Essack, Xin Gao, "Affinity2vec: Drug-Target Binding Affinity Prediction Through Representation Learning, Graph Mining, And Machine Learning", *Scientific Reports*, vol: 12, 2022.
DOI: [10.1038/s41598-022-08787-9](https://doi.org/10.1038/s41598-022-08787-9)
5. Xiangliang Zhang, Qiang Yang, Somayah Albaradei, Xiaoting Lyu, Hind Alamro, Adil Salhi, Changsheng Ma, Manal Alshehri, Inji Ibrahim Jaber, Faroug Tifratene, Wei Wang, Takashi Gojobori, Carlos M. Duarte, Xin Gao, "Rise And Fall Of The Global Conversation And Shifting Sentiments During The Covid-19 Pandemic", *Humanities And Social Sciences Communications*, vol: 8, 2021.
DOI: [10.1057/s41599-021-00798-7](https://doi.org/10.1057/s41599-021-00798-7)
6. Somayah Albaradei, Mahmut Uludag, Maha A. Thafar, Takashi Gojobori, Magbubah Essack, Xin Gao, "Predicting Bone Metastasis Using Gene Expression-Based Machine Learning Models", *Frontiers In Genetics*, vol: 12, 2021.
DOI: [10.3389/fgene.2021.771092](https://doi.org/10.3389/fgene.2021.771092)
7. Somayah Albaradei, Francesco Napolitano, Maha A. Thafar, Takashi Gojobori, Magbubah Essack, Xin Gao, "Metacancer: A Deep Learning-Based Pan-Cancer Metastasis Prediction Model Developed Using Multi-Omics Data", *Computational And Structural Biotechnology Journal*, vol: 19, pp. 4404-4411, 2021.
DOI: [10.1016/j.csbj.2021.08.006](https://doi.org/10.1016/j.csbj.2021.08.006)
8. Somayah Albaradei, Maha Thafar, Asim Alsaedi, Christophe Van Neste, Takashi Gojobori, Magbubah Essack, Xin Gao, "Machine Learning And Deep Learning Methods That Use Omics Data For Metastasis Prediction", *Computational And Structural Biotechnology Journal*, vol: 19, pp. 5008-5018, 2021.
DOI: [10.1016/j.csbj.2021.09.001](https://doi.org/10.1016/j.csbj.2021.09.001)
9. Maha A. Thafar, Rawan S. Olayan, Somayah Albaradei, Vladimir B. Bajic, Takashi Gojobori, Magbubah Essack, Xin Gao, "Dti2vec: Drug-Target Interaction Prediction Using Network Embedding And Ensemble Learning", *Journal Of Cheminformatics*, vol: 13, 2021.
DOI: [10.1186/s13321-021-00552-w](https://doi.org/10.1186/s13321-021-00552-w)
10. Somayah Albaradei, Arturo Magana-Mora, Maha Thafar, Mahmut Uludag, Vladimir B. Bajic, Takashi Gojobori, Magbubah Essack, Boris R. Jankovic, "Splice2deep: An Ensemble Of Deep Convolutional Neural Networks For Improved Splice Site Prediction In Genomic Dna", *Gene*, vol: 763, pp. 100035, 2020.
DOI: [10.1016/j.gene.2020.100035](https://doi.org/10.1016/j.gene.2020.100035)
11. Maha A. Thafar, Rawan S. Olayan, Haitham Ashoor, Somayah Albaradei, Vladimir B. Bajic, Xin Gao, Takashi Gojobori, Magbubah Essack, "Dtigems+: Drug-Target Interaction Prediction Using Graph Embedding, Graph Mining, And Similarity-Based Techniques", *Journal Of Cheminformatics*, vol: 12, 2020.
DOI: [10.1186/s13321-020-00447-2](https://doi.org/10.1186/s13321-020-00447-2)

Publications.

12. Somayah A. Albaradei, Francesco Napolitano, Mahmut Uludag, Maha Thafar, Sara Napolitano, Magbubah Essack, Vladimir B. Bajic, Xin Gao, "Automated Counting Of Colony Forming Units Using Deep Transfer Learning From A Model For Congested Scenes Analysis", Ieee Access, vol: 8, pp. 164340-164346, 2020.
DOI: [10.1109/ACCESS.2020.3021656](https://doi.org/10.1109/ACCESS.2020.3021656)
13. Fahad Albalawi, Abderrazak Chahid, Xingang Guo, Somayah Albaradei, Arturo Magana-Mora, Boris R. Jankovic, Mahmut Uludag, Christophe Van Neste, Magbubah Essack, Taous-Meriem Laleg-Kirati, Vladimir B. Bajic, "Hybrid Model For Efficient Prediction Of Poly(A) Signals In Human Genomic Dna", Methods, vol: 166, pp. 31-39, 2019.
DOI: [10.1016/j.ymeth.2019.04.001](https://doi.org/10.1016/j.ymeth.2019.04.001)
14. Maha Thafar, Arwa Bin Raies, Somayah Albaradei, Magbubah Essack, Vladimir B. Bajic, "Comparison Study Of Computational Prediction Tools For Drug-Target Binding Affinities", Frontiers In Chemistry, vol: 7, 2019.
DOI: [10.3389/fchem.2019.00782](https://doi.org/10.3389/fchem.2019.00782)
15. Somayah Albaradei, Maha Thafar, Christophe Van Neste, Magbubah Essack, Vladimir B. Bajic, "Metastatic State Of Colorectal Cancer Can Be Accurately Predicted With Methylome", Icbra "19: 2019 6th International Conference On Bioinformatics Research And Applications, pp. 125-130, 2019.
DOI: [10.1145/3383783.3383792](https://doi.org/10.1145/3383783.3383792)
16. Somayah Albaradei, Yang Wang, "Object Classification Using A Semantic Hierarchy", vol: 8887, pp. 228-237, 2014.
DOI: [10.1007/978-3-319-14249-4_22](https://doi.org/10.1007/978-3-319-14249-4_22)
17. Somayah Albaradei, Yang Wang, Liangliang Cao, Li-Jia Li, "Learning Mid-Level Features From Object Hierarchy For Image Classification", 2014 Ieee Winter Conference On Applications Of Computer Vision (Wacv), pp. 235-240, 2014.
DOI: [10.1109/WACV.2014.6836095](https://doi.org/10.1109/WACV.2014.6836095)