Academic Resume

Turki Turki

Associate Professor, Computer Science Department

Contact Information.

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Highest Degree.

2017, Doctor of Philosophy in Computer Science, Machine Learning, Artificial Intelligence, Bioinformatics, New Jersey Institute of Technology, USA.

Academic and Professional Experiences.

Research Interests.

Artificial Intelligence (Tensor Learning, Machine Learning, Deep Learning), Bioinformatics.

Teaching Interests.

CS 661: Advanced Artificial Intelligence, CS 433: Artificial Intelligence Topics, Bioinformatics; Genomics; Systems Biology.

Certifications and Trainings.

Social, Scientific and Professional Affiliation.

1. -, Session Co-Organizer, Emerging Machine Learning Methods and Applications for Smart Systems at IEEE ICNSC 2018.
2. -, Program Committee Member, third International Symposium on Big Data Management and Analytics (BIDMA 2018).
3. -, Program Committee Member, The 16th Australian Data Mining Conference (AusDM 2018).
4. -, Program Committee Member, The First International Workshop on Big Data Analysis for Smart Energy (BigData4SmartEnergy 2018).
5. -, Program Committee Member, The 10th Mexican Conference on Pattern Recognition (MCPR2018).
6. -, Program Committee Member, DSCI 2018: Special Session on Data Science and Computational Intelligence.
7. -, Program Committee Member, The Fifth International Conference on Mining Intelligence and Knowledge Exploration (MIKE 2017).
8. -, Editor, Sustainable Computing: Informatics and Systems.
9. -, Session Chair, Special Session on Biomedical Systems at the 2016 Annual IEEE Systems Conference (SysCon 2016).
10. -, Program Committee Member, 19th International Conference on Intelligent Data Engineering and Automated Learning (IDEAL 2018)..
11. -, Reviewer, Journal of Bioinformatics and Computational Biology (Imperial College Press).
12. -, Reviewer, Computers in Biology and Medicine Journal (Elsevier).
13. -, Program Committee Member, The 14th International Conference on Artificial Intelligence Appli- cations and Innovations (AIAI 2018).
14. -, Program Committee Member, The 12th International Conference on Practical Applications of

Computational Biology & Bioinformatics (PACBB'18).

15. -, Session Co-Organizer, Machine Learning for Complex Data Mining Applications at IEEE ICMLA 2018.
16. -, Reviewer, Tumor Biology (SAGE).
17. -, Program Committee Member, 5th International Conference on Information Management and Big Data (SIMBig 2018).
18. -, Reviewer, PLOS ONE (PLOS).

Publications.

1. Turki Turki, Sarah Al Habib, Y-h. Taguchi, "Novel Automatic Classification Of Human Adult Lung Alveolar Type Ii Cells Infected With Sars-Cov-2 Through The Deep Transfer Learning Approach", Mathematics, vol: 12, pp. 1573, 2024.
   DOI: 10.3390/math12101573
2. Turki Turki, Y-h. Taguchi, "Magenegerz: An Efficient Artificial Intelligence-Based Framework Can Extract More Expressed Genes And Biological Insights Underlying Breast Cancer Drug Response Mechanism", Mathematics, vol: 12, pp. 1536, 2024.
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3. Sumaya Alghamdi, Turki Turki, "A Novel Interpretable Deep Transfer Learning Combining Diverse Learnable Parameters For Improved T2d Prediction Based On Single-Cell Gene Regulatory Networks", Scientific Reports, vol: 14, 2024.
   DOI: 10.1038/s41598-024-54923-y
4. Y-h. Taguchi, Turki Turki, "Application Note: Tdbasedufe And Tdbasedufeadv: Bioconductor Packages To Perform Tensor Decomposition Based Unsupervised Feature Extraction", Frontiers In Artificial Intelligence, vol: 6, 2023.
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5. Y-H. Taguchi, Turki Turki, "Integrated Analysis Of Gene Expression And Protein&Ndash;Protein Interaction With Tensor Decomposition", Mathematics, vol: 11, pp. 3655, 2023.
   DOI: 10.3390/math11173655
6. Turki Turki, Sanjiban Sekhar Roy, Y.-H. Taguchi, "Optimized Tensor Decomposition And Principal Component Analysis Outperforming State-Of-The-Art Methods When Analyzing Histone Modification Chromatin Immunoprecipitation Profiles", Algorithms, vol: 16, pp. 401, 2023.
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7. Turki Turki, Y-h. Taguchi, "Genevarx: A Novel Ai-Driven Method And Web Tool Can Identify Critical Genes And Effective Drugs For Lichen Planus", Engineering Applications Of Artificial Intelligence, vol: 124, pp. 106607, 2023.
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8. Wael Alhazmi, Turki Turki, "Applying Deep Transfer Learning To Assess The Impact Of Imaging Modalities On Colon Cancer Detection", Diagnostics, vol: 13, pp. 1721, 2023.
   DOI: 10.3390/diagnostics13101721
9. Hamed Alghamdi, Turki Turki, "Pdd-Net: Plant Disease Diagnoses Using Multilevel And Multiscale Convolutional Neural Network Features", Agriculture, vol: 13, pp. 1072, 2023.
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10. Y.-H. Taguchi, Turki Turki, "Tensor Decomposition Discriminates Tissues Using Scatac-Seq", Biochimica Et Biophysica Acta (Bba) - General Subjects, pp. 130360, 2023.
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11. Y.-H. Taguchi, Turki Turki, "Principal Component Analysis- And Tensor Decomposition-Based Unsupervised Feature Extraction To Select More Suitable Differentially Methylated Cytosines: Optimization Of Standard Deviation Versus State-Of-The-Art Methods", Genomics, vol: 115, pp. 110577, 2023.
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12. Turki Turki, Y-h. Taguchi, "A New Machine Learning Based Computational Framework Identifies Therapeutic Targets And Unveils Influential Genes In Pancreatic Islet Cells", Gene, pp. 147038, 2023.
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13. Y-h. Taguchi, Turki Turki, "A Tensor Decomposition-Based Integrated Analysis Applicable To Multiple Gene Expression Profiles Without Sample Matching", Scientific Reports, vol: 12, 2022.
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14. Y-h. Taguchi, Turki Turki, "Adapted Tensor Decomposition And Pca Based Unsupervised Feature Extraction Select More Biologically Reasonable Differentially Expressed Genes Than Conventional Methods", Scientific Reports, vol: 12, 2022.
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15. Y-h. Taguchi, Turki Turki, "Projection In Genomic Analysis: A Theoretical Basis To Rationalize Tensor Decomposition And Principal Component Analysis As Feature Selection Tools", Plos One, vol: 17, pp. e0275472, 2022.
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16. Turki Turki, Sanjiban Sekhar Roy, "Novel Hate Speech Detection Using Word Cloud Visualization And Ensemble Learning Coupled With Count Vectorizer", Applied Sciences, vol: 12, pp. 6611, 2022.
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17. Y-H. Taguchi, Turki Turki, "Integrated Analysis Of Tissue-Specific Gene Expression In Diabetes By Tensor Decomposition Can Identify Possible Associated Diseases", Genes, vol: 13, pp. 1097, 2022.
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18. Khalil Aljohani, Turki Turki, "Automatic Classification Of Melanoma Skin Cancer With Deep Convolutional Neural Networks", Ai, vol: 3, pp. 512-525, 2022.
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19. Turki Turki, Zhi Wei, "Improved Deep Convolutional Neural Networks Via Boosting For Predicting The Quality Of In Vitro Bovine Embryos", Electronics, vol: 11, pp. 1363, 2022.
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20. Y-h. Taguchi, Turki Turki, "Novel Feature Selection Method Via Kernel Tensor Decomposition For Improved Multi-Omics Data Analysis", Bmc Medical Genomics, vol: 15, 2022.
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21. Yh. Taguchi, Turki Turki, "Novel Method For The Prediction Of Drug-Drug Interaction Based On Gene Expression Profiles", European Journal Of Pharmaceutical Sciences, vol: 160, pp. 105742, 2021.
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22. Turki Turki, Y-h. Taguchi, "Discriminating The Single-Cell Gene Regulatory Networks Of Human Pancreatic Islets: A Novel Deep Learning Application", Computers In Biology And Medicine, vol: 132, pp. 104257, 2021.
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23. Y-h. Taguchi, Turki Turki, "Unsupervised Tensor Decomposition-Based Method To Extract Candidate Transcription Factors As Histone Modification Bookmarks In Post-Mitotic Transcriptional Reactivation", Plos One, vol: 16, pp. e0251032, 2021.
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24. Turki Turki, Anmar Al-Sharif, Y-h. Taguchi, "End-To-End Deep Learning For Detecting Metastatic Breast Cancer In Axillary Lymph Node From Digital Pathology Images", Intelligent Data Engineering And Automated Learning &Ndash; Ideal 2021, Intelligent Data Engineering And Automated Learning &Ndash; Ideal 2021, vol: 13113, pp. 343-353, 2021.
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25. Xiang Lin, Jie Zhang, Zhi Wei, Turki Turki, "An Omnibus Test For Differential Distribution Analysis Of Continuous Microbiome Data", Ieee Access, vol: 9, pp. 100029-100039, 2021.
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26. Y-h. Taguchi, Turki Turki, "Tensor-Decomposition-Based Unsupervised Feature Extraction In Single-Cell Multiomics Data Analysis", Genes, vol: 12, pp. 1442, 2021.
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27. Y-h. Taguchi, Turki Turki, "Effects Of Collagen&Amp;Ndash;Glycosaminoglycan Mesh On Gene Expression As Determined By Using Principal Component Analysis-Based Unsupervised Feature Extraction", Polymers, vol: 13, pp. 4117, 2021.
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28. Y-h. Taguchi, Turki Turki, "A New Advanced In Silico Drug Discovery Method For Novel Coronavirus (Sars-Cov-2) With Tensor Decomposition-Based Unsupervised Feature Extraction", Plos One, 2020.
29. Y-h. Taguchi,Turki Turki, "Universal Nature Of Drug Treatment Responses In Drug-Tissue-Wide Model-Animal Experiments Using Tensor Decomposition-Based Unsupervised Feature Extraction", Frontiers In Genetics, 2020.
30. Turki Turki, Y-h. Taguchi, "Scgrns: Novel Supervised Inference Of Single-Cell Gene Regulatory Networks Of Complex Diseases", Computers In Biology And Medicine, vol: 118, pp. 103656, 2020.
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31. Zhihang Hu, Turki Turki, Jason T. L. Wang, "Generative Adversarial Networks For Stochastic Video Prediction With Action Control", Ieee Access, vol: 8, pp. 63336-63348, 2020.
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35. Turki Turki, Y-h. Taguchi, "Machine Learning Algorithms For Predicting Drugs&Ndash;Tissues Relationships", Expert Systems With Applications, vol: 127, pp. 167-186, 2019.
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36. Liulin Yang, Yun Li, Turki Turki, Huizi Tan, Zhi Wei, Xiao Chang, "Weighted Gene Co-Expression Network Analysis Reveals Dysregulation Of Mitochondrial Oxidative Phosphorylation In Eating Disorders", Genes, vol: 9, pp. 325, 2018.
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39. Zhihang Hu, Turki Turki, Nhathai Phan, Jason T. L. Wang, "A 3d Atrous Convolutional Long Short-Term Memory Network For Background Subtraction", Ieee Access, vol: 6, pp. 43450-43459, 2018.
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40. Haodi Jiang, Turki Turki, Sen Zhang and Jason T. L. Wang, "Reverse Engineering Gene Regulatory Networks Using Graph Mining", 14th International Conference On Machine Learning And Data Mining (Mldm 2018),, 2018.
41. Turki Turki, "An Empirical Study Of Machine Learning Algorithms For Cancer Identification", 15th Ieee International Conference On Networking, Sensing And Control, 2018.

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42. Turki Turki, Zhi Wei, Jason T. L. Wang, "A Transfer Learning Approach Via Procrustes Analysis And Mean Shift For Cancer Drug Sensitivity Prediction", Journal Of Bioinformatics And Computational Biology, 2018.
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43. Turki Turki, Zhi Wei, and Jason T. L. Wang, "A Transfer Learning Approach Via Procrustes Analysis And Mean Shift For Cancer Drug Sensitivity Prediction", 28th International Conference On Genome Informatics Giw/Bioinfo 2017, 2018.
44. Haodi Jiang, Turki Turki, Jason T. L. Wang, "Reverse Engineering Regulatory Networks In Cells Using A Dynamic Bayesian Network And Mutual Information Scoring Function", 2017 16th Ieee International Conference On Machine Learning And Applications (Icmla), pp. 761-764, 2017.
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46. Turki Turki, Jason T. L. Wang, "Reverse Engineering Gene Regulatory Networks Using Sampling And Boosting Techniques", vol: 10358, pp. 63-77, 2017.
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47. Turki Turki, Zhi Wei, "A Link Prediction Approach To Cancer Drug Sensitivity Prediction", Bmc Systems Biology, vol: 11, 2017.
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51. Turki Turki, Zhi Wei, "A Greedy-Based Oversampling Approach To Improve The Prediction Of Mortality In Mers Patients", 2016 Annual Ieee Systems Conference (Syscon), pp. 1-5, 2016.
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53. Turki Turki, Jason T. L. Wang, Ibrahim Rajikhan, "Inferring Gene Regulatory Networks By Combining Supervised And Unsupervised Methods", 2016 15th Ieee International Conference On Machine Learning And Applications (Icmla), pp. 140-145, 2016.
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54. Turki Turki, Zhi Wei, "Learning Approaches To Improve Prediction Of Drug Sensitivity In Breast Cancer Patients", 2016 38th Annual International Conference Of The Ieee Engineering In Medicine And Biology Society (Embc), pp. 3314-3320, 2016.
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55. Turki Turki and Zhi Wei, "Ipred: Instance Reduction Algorithm Based On The Percentile Of The Partitions", 26th Modern Ai And Cognitive Science Conference, 2015.

Publications.

56. Turki Turki, Usman Roshan, "Maxssmap: A Gpu Program For Mapping Divergent Short Reads To Genomes With The Maximum Scoring Subsequence", Bmc Genomics, vol: 15, pp. 969, 2014.
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57. Turki Turki, Muhammad Ihsan, Nouf Turki, Jie Zhang, Usman Roshan, Zhi Wei, "Top-K Parametrized Boost", vol: 8891, pp. 91-98, 2014.
DOI: 10.1007/978-3-319-13817-6_10
58. Turki Turki, Usman Roshan, "Weighted Maximum Variance Dimensionality Reduction", vol: 8495, pp. 11-20, 2014.
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