Academic Resume

Manal Kalkatawi

Assistant Professor, Information Technology Department

I am an Assistant Professor in the College of Information Technology at King Abdulaziz University, specializing in Deep Learning and Artificial Intelligence. I have extensive experience in many disciplines related to building and customizing machine/deep learning models in the NLP, medical image processing and bioinformatics fields.

Contact Information.

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Highest Degree.

2017, , Bioinformatics, KAUST, Saudi Arabia.

Academic and Professional Experiences.

1. **2020 - 2020**
   Data annotation supervisor, Riyadh, KAUST and Lucidya.
2. **2018 - Present**
   Assistant professor, Faculty of Computing and Information Technology, King Abdulaziz University.
3. **2008 - 2017**
   Teacher assistant, Faculty of Computing and Information Technology, King Abdulaziz University.

Research Interests.

Machine Learning, Bioinformatics, Artificial Intelligence, Deep Learning, Data Mining, Natural Language Processing, Medical image processing, Data science.

Teaching Interests.

Data mining, Data management and analysis, Databases.

Certifications and Trainings.

1. Academic Excellence Award.
2. Master degree scholarship.
3. Excellence certificates during four years of bachelor study.
4. Diploma of Professional Development in Teaching and Learning.
5. Academic Promotions Workshops.
6. Blackboard Collaborate Ultra.
7. RESEARCH ETHICS TRAINING CURRICULUM.
8. CPR.
9. Online Students Assessment.
10. CLO writing.
11. How to conduct systematic review.

Social, Scientific and Professional Affiliation.

1. 2010-2010, Internship, Oxford University/Oxford e-Research Centre.
2. 2018-2025, Assistant professor, KAU.
3. 2011-2017, Research, KAUST.

Funded Projects.

1. 2019, Development of Integrated Deep Learning Model to Predict COVID-19 Infection from Blood Inflammatory and Immune Marker and Chest CT Images in Saudi Population, Vice Presidency for Graduate Studies and Academic Research Deanship of Scientific Research
2. 2021, : Behavioral Biometric-based Solution for Credit Card Fraud Detection, KAU, Vice Presidency for Graduate Studies and Academic Research Deanship of Scientific Research.

Publications.

1. Asma Cherif, Heyfa Ammar, Manal Kalkatawi, Suhair Alshehri, Abdessamad Imine, "Encoder&Ndash;Decoder Graph Neural Network For Credit Card Fraud Detection", Journal Of King Saud University - Computer And Information Sciences, vol: 36, pp. 102003, 2024.
   DOI: 10.1016/j.jksuci.2024.102003
2. Shatha Alyoubi, Manal Kalkatawi, Felwa Abukhodair, "The Detection Of Fake News In Arabic Tweets Using Deep Learning", Applied Sciences, vol: 13, pp. 8209, 2023.
   DOI: 10.3390/app13148209
3. Rawan Alaufi, Manal Kalkatawi, Felwa Abukhodair, "Challenges Of Deep Learning Diagnosis For Covid-19 From Chest Imaging", Multimedia Tools And Applications, 2023.
   DOI: 10.1007/s11042-023-16017-1
4. Rawan alaufi, Manal Kalkatawi, Felwa Abukhodair, "Covid-Capsnet: A Capsule Network Model To Detect Covid-19 From Ct Images", Applied Sciences, 2023.
5. Asma Cherif, Suhair Alshehri, Manal Kalkatawi, Abdessamad Imine, "Towards An Intelligent Adaptive Security Framework For Preventing And Detecting Credit Card Fraud", 2022 Ieee/Acs 19th International Conference On Computer Systems And Applications (Aiccsa), pp. 1-8, 2022.
   DOI: 10.1109/AICCSA56895.2022.10017814
6. Asma Cherif, Arwa Badhib, Heyfa Ammar, Suhair Alshehri, Manal Kalkatawi, Abdessamad Imine, "Credit Card Fraud Detection In The Era Of Disruptive Technologies: A Systematic Review", Journal Of King Saud University - Computer And Information Sciences, 2022.
   DOI: 10.1016/j.jksuci.2022.11.008
7. Raghad ALASSIRI, Felwa ABUKHODAIR, Manal KALKATAWI, Khalid KHASHOGGI, Reem ALOTAIBI, "Covid-19 Diagnosis From Chest Ct Scan Images Using Deep Learning", Romanian Journal Of Information Technology And Automatic Control, vol: 32, pp. 65-72, 2022.
   DOI: 10.33436/v32i3y202205
8. Elaf Alshehri, Manal Kalkatawi, Felwa Abukhodair, Khalid Khashoggi, Reem Alotaibi, "Covid-19 Diagnosis From Medical Images Using Transfer Learning", Saudi Journal Of Health Systems Research, pp. 1-8, 2022.
   DOI: 10.1159/000521658
9. Hind Alamro, Manal Alshehri, Basma Alharbi, Zuhair Khayyat, Manal Kalkatawi, Inji Ibrahim Jaber, Xiangliang Zhang, "Overview Of The Arabic Sentiment Analysis 2021 Competition At Kaust", Arxiv Preprint Arxiv:2109.14456, 2021.
10. Amal Alharbi, Manal Kalkatawi, Mounira Taileb, "Arabic Sentiment Analysis Using Deep Learning And Ensemble Methods", Arabian Journal For Science And Engineering, 2021.
    DOI: 10.1007/s13369-021-05475-0
11. Basma Alharbi, Hind Alamro, Manal Alshehri, Zuhair Khayyat, Manal Kalkatawi, Inji Ibrahim Jaber, Xiangliang Zhang, "Asad: A Twitter-Based Benchmark Arabic Sentiment Analysis Dataset", Arxiv Preprint Arxiv:2011.00578, 2020.
12. Wafaa Alsaggaf, Manal Kalkatawi, Mordiah Rahman, Alaa Elshareef, Abeer Radwan, Sahar Alkhateeb, "Stay Alive: A Game-Based Learning For Disaster Prevention Using Virtual Reality", 14th International Technology, Education And Development Conference, pp. 7791-7795, 2020.
    DOI: 10.21125/inted.2020.2126
13. Amal Alharbi, Mounira Taileb, Manal Kalkatawi, "Deep Learning In Arabic Sentiment Analysis: An Overview", Journal Of Information Science, pp. 016555151986548, 2019.
    DOI: 10.1177/0165551519865488

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Publications.

14. Manal Kalkatawi, Arturo Magana-Mora, Boris Jankovic, Vladimir B Bajic, Alfonso Valencia, "Deepgsr: An Optimized Deep-Learning Structure For The Recognition Of Genomic Signals And Regions", Bioinformatics, 2018.
DOI: 10.1093/bioinformatics/bty752
15. Arturo Magana-Mora, Manal Kalkatawi, Vladimir B. Bajic, "Omni-Polya: A Method And Tool For Accurate Recognition Of Poly(A) Signals In Human Genomic Dna", Bmc Genomics, vol: 18, 2017.
DOI: 10.1186/s12864-017-4033-7
16. Manal Kalkatawi, Intikhab Alam, Vladimir B. Bajic, "Beacon: Automated Tool For Bacterial Genome Annotation Comparison", Bmc Genomics, vol: 16, 2015.
DOI: 10.1186/s12864-015-1826-4
17. Intikhab Alam, Andra Antunes, Allan Anthony Kamau, Wail Ba alawi, Manal Kalkatawi, Ulrich Stingl, Vladimir B. Bajic, Enrique Hernandez-Lemus, "Indigo:Integrated Data Warehouse Of Microbial Genomes With Examples From The Red Sea Extremophiles", Plos One, vol: 8, pp. e82210, 2013.
DOI: 10.1371/journal.pone.0082210
18. Manal Kalkatawi, Farania Rangkuti, Michael Schramm, Boris R. Jankovic, Allan Kamau, Rajesh Chowdhary, John A. C. Archer, Vladimir B. Bajic, "Dragon Polya Spotter: Predictor Of Poly(A) Motifs Within Human Genomic Dna Sequences", Bioinformatics, vol: 29, pp. 1484-1484, 2013.
DOI: 10.1093/bioinformatics/btt161
19. Manal Kalkatawi, Farania Rangkuti, Michael Schramm, Boris R. Jankovic, Allan Kamau, Rajesh Chowdhary, John A. C. Archer, Vladimir B. Bajic, "Dragon Polya Spotter: Predictor Of Poly(A) Motifs Within Human Genomic Dna Sequences", Bioinformatics, vol: 28, pp. 127-129, 2011.
DOI: 10.1093/bioinformatics/btr602