



Mejdul Safran, PhD

Assistant Professor & AI Consultant

Contact info

- Office no.: 2236 – Department of Computer Science, King Saud University, PO BOX: 51178, Riyadh, 11543, Saudi Arabia
- Phone: (+966) 504-474-seven-three-two
- Email: mejdl@ksu.edu.sa
- Website: <http://fac.ksu.edu.sa/mejdl>

Research Interest

- *Deep Learning*, such as developing novel architectures and algorithms for image classification, segmentation, and generation.
- *Pattern Recognition*, such as applying machine learning techniques to recognize faces, emotions, gestures, and actions in images and videos.
- *Video Analytics*, such as extracting useful information and insights from video streams using computer vision and natural language processing methods.
- *Recommendation Systems*, such as designing and evaluating personalized and collaborative recommender systems for e-commerce, entertainment, and education domains.
- *Behavior Modeling*, such as analyzing and predicting human behavior patterns and preferences using data mining and machine learning techniques.
- *Natural Language Processing*, such as building and testing natural language understanding and generation models for various tasks and applications.
- *Big Data Mining*, such as collecting, processing, and analyzing large-scale and complex data sets using distributed and parallel computing frameworks

Education

- **Doctor of Philosophy in Computer Science**, Southern Illinois University Carbondale, USA (2014-2018)
 - Dissertation: “Efficient Learning-based Recommendation Algorithms for Top-K Tasks and Top-K Workers in Large-scale Crowdsourcing Systems”.
 - GPA: 4.0/4.0
 - Awarded the Outstanding Graduate Student Award in 2017.
 - Published 3 articles in top-tier journals and conferences.
- **Master of Science in Computer Science**, Southern Illinois University Carbondale, USA (2011-2013)
 - GPA: 4.0/4.0
 - Published 3 papers in conferences.
- **Bachelor of Science in Computer Science**, King Saud University, Riyadh, Saudi Arabia (2003-2007)
 - GPA: 4.7/5.0
 - Graduated with honors.
 - Involved in a project on “Natural Language Processing for Arabic Texts” sponsored by the King Abdulaziz City for Science and Technology.

Professional appointments

- **Research Chair Director, AI in Online Dialogue and Cultural Communication** Research Chair, Riyadh, Saudi Arabia (March 2023 – present)
 - Lead and oversee the research activities and projects of the Chair, which aims to use machine learning techniques to develop innovative and effective ways of online dialogue and cultural communication.
 - Establish and maintain partnerships with academic institutions, civil society organizations, and media outlets to promote AI technologies used in intercultural dialogue and mutual understanding.
 - Design and implement online smart platforms and tools for facilitating dialogue and exchange among diverse cultural groups and stakeholders.
 - Supervise and mentor a team of faculty members, researchers, students, and staff from the host institution and other partner organizations.
 - Publish and disseminate the research findings and recommendations of the Chair through academic journals, conferences, and workshops.
- **Saudi Arabia Representative, ISO Strategic Action Group – Smart Farming**, Riyadh, Saudi Arabia (January 2022 – March 2023)
 - Represent the interests and perspectives of Saudi Arabia in the development and adoption of international standards and best practices for smart farming and agriculture.
 - Participate in meetings, workshops, and consultations with other members of the ISO Strategic Action Group and relevant stakeholders from the industry, academia, and government sectors.
 - Review and provide feedback on the draft standards and documents related to smart farming and agriculture.
- **Part-time AI Consultant**, Minister of Environment, Water & Agriculture (to the deputy minister of agriculture), Riyadh, Saudi Arabia (March 2020 – present)
 - Assist the deputy minister of agriculture in developing and implementing the strategic vision and plan for the integration of artificial intelligence and machine learning in the agricultural sector.
 - Conduct research and analysis on the current and potential applications and challenges of AI and machine learning in agriculture, such as crop yield optimization, irrigation management, soil health monitoring, and pest control.
 - Recommend and oversee the adoption and evaluation of AI-based solutions and tools for enhancing the efficiency, productivity, and sustainability of agriculture.
- **Assistant Professor**, King Saud University College of Computer and Information Sciences, Computer Science Department, Riyadh, Saudi Arabia (June 2018 – present)
 - Teach undergraduate and graduate courses on artificial intelligence, machine learning, data mining, and computer vision.
 - Supervise and mentor students and researchers in their academic and research activities and projects.
 - Conduct and publish high-quality research on artificial intelligence, machine learning, data mining, and computer vision in top-tier journals and conferences.
- **Lecturer**, King Saud University, College of Computer and Information Sciences, Computer Science Department, Riyadh, Saudi Arabia (March 2015– June 2018)
 - Teach undergraduate courses on programming, data structures, algorithms, and software engineering.
 - Assist and support students and faculty members in their academic and research activities and projects.
 - Pursue and complete a PhD degree in computer science at Southern Illinois University Carbondale, USA.

- **Teaching Assistant**, King Saud University, College of Computer and Information Sciences, Computer Science Department, Riyadh, Saudi Arabia (July 2007– March 2015)
 - Assist and support faculty members in teaching and grading undergraduate courses on computer science and related topics.
 - Tutor and help students in their academic and learning difficulties and challenges.
 - Pursue and complete a master's degree in computer science at Southern Illinois University Carbondale, USA.
- **IT Consultant**, Department of Planning and Information, Ministry of Education, Riyadh, Saudi Arabia (November 2009 - August 2010)
 - Provide technical and operational support and guidance for the planning and implementation of IT projects and initiatives for the Ministry of Education.
 - Troubleshoot and resolve IT issues and problems related to hardware, software, network, and security.
 - Train and educate staff and users on the proper and effective use of IT systems and applications.
- **IT Consultant**, Smart Schools Project, King Abdullah Bin Abdul-Aziz Project for Public Education Development- Tatweer, Riyadh, Saudi Arabia (August 2008 – August 2009)
 - Provide technical and operational support and guidance for the development and deployment of IT solutions and services for the Smart Schools Project, which aims to transform the public education system in Saudi Arabia using technology and innovation.
 - Install, configure, and maintain IT equipment, software, and network for smart schools.
 - Train and educate teachers and students on the proper and effective use of IT tools and resources for teaching and learning.
- **Arabic Search Engine Programmer**, King Abdul-Aziz City for Science and Technology, Riyadh, Saudi Arabia (May 2006 - August 2006)
 - Participate in the development and testing of an Arabic search engine that can handle the linguistic and semantic complexities and variations of the Arabic language.
 - Implement and evaluate various algorithms and techniques for Arabic text processing, such as tokenization, normalization, stemming, and indexing.
 - Create and update the database and the user interface of the Arabic search engine.

Research Grants

- Researcher Supporting Program, The Deanship of Scientific Research at King Saud University, Riyadh, Saudi Arabia (July 2023 – July 2024)
 - Ongoing grant, secure fund for research projects and publications in top-tier journals on artificial intelligence and machine learning.
- Oriented Research Publishing Support Program, The Deanship of Scientific Research at King Saud University, Riyadh, Saudi Arabia (January 2023 – December 2023)
 - Ongoing grant, secure fund for research projects and publications in top-tier journals on artificial intelligence and machine learning.
- AI in Online Dialogue and Cultural Communication Research Chair, Riyadh, Saudi Arabia (March 2023 – present)

- Ongoing grant, secure fund for research projects and publications in high-quality research papers in top-tier journals on NLP and LLMs.

Research Projects

- and • Measuring the Impact of Data Capacity for Stratified Patient Groups on the Learning Sensitivity of Machine Learning Models: A Healthcare Perspective (August 2023 – May 2024)
 - Supervise a Master Student project that aims to analyze hospital dataset to measure the impact of data capacity for stratified patient groups on ML models using two use cases: no-show patients and readmission patients.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the student to publish and present their project in a reputable journal and conference.
- Detecting and Classifying Cervical Vertebral Maturation Stages and Cephalometric landmarks, Main supervisor, Graduation project (August 2023 – May 2024)
 - Supervise a graduation project that aims to analyze medical images and classify the stages of CVM and identify the cephalometric landmarks using Yolo models.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the students to publish and present their project in a reputable journal and conference.
- Efficient Image-based Date Palm Species Identification Using Transfer Learning, Main supervisor, Graduation project (August 2022 – May 2023)
 - Supervise a graduation project that aims to classify date palm trees based on their images taken by users' phones using deep learning models.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the students to publish and present their project in a reputable journal and conference.
- Islamic Rulings on Artificial Intelligence Applications Related to Judiciary, Second supervisor, PhD dissertation (August 2020 – May 2023)
 - Co-supervise a PhD dissertation that aims to study the Islamic rulings on artificial intelligence applications related to judiciary, such as AI-based judges, lawyers, and witnesses.
 - Provide guidance and feedback on the literature review, research design, data analysis, and dissertation writing.
- Smart Parking System (SPS): AI-based solution, Main supervisor, Graduation project (August 2022 – May 2023)
 - Supervise a graduation project that aims to intelligently analyze the parking lot video recordings by utilizing deep learning techniques to detect vehicles and recognize Saudi vehicle license plates.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the students to publish and present their project in a reputable journal and conference.
- AI project to classify the type and age of Arabian camel breeds from their images, AI consultant, Joint project (August 2022 – May 2023)

- Provide expert advice and guidance on the use of artificial intelligence and machine learning for classifying the type and age of Arabian camel breeds from their images using deep learning models.
 - Develop and implement AI-based solutions for data analysis, modeling, and prediction of camel breeds and ages.
 - Collaborate with researchers, stakeholders, and policy makers to evaluate and disseminate the results and recommendations of AI-based interventions.
- Efficient Speaker Identification and Speech-to-Text System, Main supervisor, Graduation project (September 2021 – June 2022)
 - Supervise a graduation project that aims to identify the speaker and convert the Arabic speech to text in real time.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the students to publish and present their project in a reputable journal and conference.
- Event Recommendation App, Main supervisor, Graduation project (September 2021 – June 2022)
 - Supervise a graduation project that aims to recommend relevant events to users based on their historical preferences for the region of Saudi Arabia.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the students to publish and present their project in a reputable journal and conference.
- In-store Insights: Smart Interpretations of Shoppers' Behaviors, Main supervisor, Graduation project (August 2020 – May 2021)
 - Supervise a graduation project that aims to intelligently analyze retail stores' video recordings and provide smart insights that are accessible to the stores' owners via a web-based dashboard.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the students to publish and present their project in a reputable journal and conference.
- AI-based Plant Care App, Main supervisor, Graduation project (August 2019 – May 2020)
 - Supervise a graduation project that aims to intelligently recommend farmers with agricultural plans for plant seeding, watering, fertilizing, harvesting; and to remind farmer when agricultural actions need to be taken.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the students to publish and present their project in a reputable journal and conference.
- AI-based Plant Doctor App, Main supervisor, Graduation project (August 2018 – May 2019)
 - Supervise a graduation project that aims to intelligently recognize plant diseases and provide treatment plans for farmers.
 - Provide guidance and feedback on the literature review, data collection, model development, evaluation, and report writing.
 - Help the students to publish and present their project in a reputable journal and conference.

- AI services for agricultural extension project (Murshidak), AI consultant, Project at the ministry of environment, water and agriculture (March 2020 – present)
 - Provide expert advice and guidance on the use of artificial intelligence and machine learning for providing agricultural extension services, such as AI-based plant disease identification and AI-based chatbot.
 - Develop and implement AI-based solutions for data analysis, modeling, and prediction of plant diseases and agricultural queries.
 - Collaborate with researchers, stakeholders, and policy makers to evaluate and disseminate the results and recommendations of AI-based interventions.
- AI-based platform for automating the process of reporting the frame visits over the kingdom, AI consultant, Project at the ministry of environment, water, and agriculture (January 2021 – present)
 - Provide expert advice and guidance on the use of artificial intelligence and machine learning for automating the process of reporting the frame visits over the kingdom, such as collecting, processing, and analyzing the data from the field visits and generating automated reports and dashboards.
 - Develop and implement AI-based solutions for data analysis, modeling, and prediction of the frame visits and their outcomes and impacts.
 - Collaborate with researchers, stakeholders, and policy makers to evaluate and disseminate the results and recommendations of AI-based interventions.

Professional Training Courses

- Professional training courses in Information Security, Cybersecurity and Cryptography were offered to government agencies such as General Directorate of Board Guard, and King Fahad Library.
- Professional training courses in AI and ML were offered to private and governmental agencies.

Professional Volunteer Work

- AI technologies in Classifying Camels from Their Images, Panel Discussion Participant, Camel Tech Conference, Qatar (October 2023)
- AI Role in Improving Education and HealthCare, The International Conference & Exhibition For Education ICEE 2022, Riyadh, Public lecture presenter, (May 2022).
- The Role of Emerging Technologies in the early Detection of Radical Terrorist Content on Social Media Networks, Public lecture presenter, Islamic Military Counterterrorism Coalition (IMCTC) (July 2021)
- AI and Drones Solution for Agriculture, International workshop organizer and presenter, Ministry of Environment, Water & Agriculture (July 2020)
- AI & Drones Technologies for Farming, Public lecture presenter, Small & Medium Enterprises General Authority – Monsha'at (September 2020)
- AI technologies for oil spills detection, International workshop organizer and presenter, Ministry of Environment, Water & Agriculture (October 2020)
- Knowledge transfer: Modern best practices in UK and applicability to KSA, Panel Discussion Participant, UK-KSA Scientific Workshop on Clean Energy & AI (February 2019)
- Smart Sustainable Agriculture Solutions, Public lecture presenter, Deputy Minister of Agriculture in Saudi Arabia (December 2019)
- AI meeting Crowdsourcing: challenges and opportunities, Public lecture presenter, Saudi Federation for Cybersecurity, Programming, and Drones (January 2020)

- President of the Saudi Student Club at Southern Illinois University Carbondale (January 2014 – January 2015)
- Reviewing and judging AI articles submitted to well-known journals and conferences
- Representative of graduate students in the Computer Science department at SIU in 2014
- Programming workshops presenter for Saudi students in USA
- Main examiner for the Science Fair of Southern Illinois high schools
- Active member of IEEE

Awards

- Excellent achievement certificate from His Excellency the Minister of MEWA on the AI contributions in the Saudi agriculture.
- Excellent achievement certificate from Monshaat on AI-based drone in agriculture.
- One of the top-10 winners in the graduation project contest organized by the Advanced Electronics Company in Riyadh (students participated from three different colleges).
- Excellent achievement certificates from the Saudi Culture Mission in Washington DC.
- Thank-you letter from cultural attaché of the Saudi Culture Mission in Washington DC. for the success of the Saudi Student Organization at Southern Illinois University Carbondale.
- Honor class degree from King Saud University.
- Several certificates of excellence received from the chair of computer science department in King Saud University.

Scientific Publications

- **Mejdl Safran**, Sultan Alfarhood, and Abdulmalik Alajmi, Efficient Multistage License Plate Detection and Recognition Using YOLOv8 and CNN for Smart Parking Systems, *Journal of Sensors*, Accepted Jan **2024**.
- **Safran M**, Alrajhi W and Alfarhood S (**2024**) DPXception: a lightweight CNN for image-based date palm species classification. *Front. Plant Sci.* 14:1281724. doi: 10.3389/fpls.2023.1281724
- Mustafa Ibrahim Khaleel, **Mejdl Safran**, Sultan Alfarhood, Michelle Zhu, Energy-latency trade-off analysis for scientific workflow in cloud environments: The role of processor utilization ratio and mean grey wolf optimizer, *Engineering Science and Technology, an International Journal*, vol 50, **2024**, 101611.
- Nobel, S.M.N.; Swapno, S.M.M.R.; Hossain, M.A.; **Safran, M.**; Alfarhood, S.; Kabir, M.M.; Mridha, M.F. Modern Subtype Classification and Outlier Detection Using the Attention Embedder to Transform Ovarian Cancer Diagnosis. *Tomography* **2024**, *10*, 105-132. <https://doi.org/10.3390/tomography10010010>
- Mazumder MKA, Mridha MF, Alfarhood S, **Safran M**, Abdullah-Al-Jubair M and Che D (**2024**) A robust and light-weight transfer learning-based architecture for accurate detection of leaf diseases across multiple plants using less amount of images. *Front. Plant Sci.* 14:1321877. doi: 10.3389/fpls.2023.1321877
- Mishra, A.K., Gupta, I.K., Srivastava, S., Alfarhood, S., **Safran, M.** (2024). Empowering EEG motor imagery classification with deep transfer learning approach. *Expert Systems*, e13530.
- S. M. N. Nobel *et al.*, "Palm Leaf Health Management: A Hybrid Approach for Automated Disease Detection and Therapy Enhancement," in *IEEE Access*, vol. 12, pp. 9097-9111, 2024, doi: 10.1109/ACCESS.2024.3351912.

- M. Y. Shakor, M. I. Khaleel, **M. Safran**, S. Alfarhood and M. Zhu, "Dynamic AES Encryption and Blockchain Key Management: A Novel Solution for Cloud Data Security," in *IEEE Access*, doi: 10.1109/ACCESS.2024.3351119.
- Mustafa Ibrahim Khaleel, **Mejdl Safran**, Sultan Alfarhood, Deepak Gupta, "Combinatorial metaheuristic methods to optimize the scheduling of scientific workflows in green DVFS-enabled edge-cloud computing", *Alexandria Engineering Journal*, vol. 86, **2024**, pp. 458-470, <https://doi.org/10.1016/j.aej.2023.11.074>.
- Gupta, P., Rustam, F., Kanwal, K., Aljedaani, W., Alfarhood, S., **Safran, M.**, Ashraf, I., Detecting Thyroid Disease Using Optimized Machine Learning Model Based on Differential Evolution. *Int J Comput Intell Syst* 17, 3 (2024). <https://doi.org/10.1007/s44196-023-00388-2>
- **Safran, M.**, *Real-time Plant Disease Segmentation and Identification using Deep Learning*, In Proceedings of 3rd International Conference on Computing and Information Technology (ICCIT), Tabuk, Saudi Arabia, **2023**, pp. 377-383, doi: 10.1109/ICCIT58132.2023.10273956.
- N. A. Butt, Z. Mahmood, K. Shakeel, S. Alfarhood, **M. Safran** and I. Ashraf, "Performance Prediction of Students in Higher Education Using Multi-Model Ensemble Approach," in *IEEE Access*, vol. 11, pp. 136091-136108, **2023**, doi: 10.1109/ACCESS.2023.3336987.
- Sushruta Mishra, Dayal Rohan Voley, Navdeep Bohra, Sultan Alfarhood, **Mejdl Safran**, "A smart and sustainable framework for millet crop monitoring equipped with disease detection using enhanced predictive intelligence", *Alexandria Engineering Journal*, vol 83, **2023**, pp. 298-306, <https://doi.org/10.1016/j.aej.2023.10.041>.
- Shah, Q.A.; Shafi, I.; Ahmad, J.; Alfarhood, S.; **Safran, M.**; Ashraf, I. A Meta Modeling-Based Interoperability and Integration Testing Platform for IoT Systems. *Sensors* **2023**, 23, 8730. <https://doi.org/10.3390/s23218730>
- Majeed, F.; Shafique, U.; **Safran, M.**; Alfarhood, S.; Ashraf, I. Detection of Drowsiness among Drivers Using Novel Deep Convolutional Neural Network Model. *Sensors* **2023**, 23, 8741. <https://doi.org/10.3390/s23218741>
- M. S. H. Shovon, M. F. Mridha, K. M. Hasib, S. Alfarhood, **M. Safran** and D. Che, "Addressing Uncertainty in Imbalanced Histopathology Image Classification of HER2 Breast Cancer: An Interpretable Ensemble Approach With Threshold Filtered Single Instance Evaluation (SIE)," in *IEEE Access*, vol. 11, pp. 122238-122251, 2023, doi: 10.1109/ACCESS.2023.3327898
- Shakeel, M., AlQahtani, S.A., Rehman, M.J.U., Kudra, G., Awrejcewicz, J., Alawwad, A., Alotaibi, A., and **Safran, M.** Construction of diverse water wave structures for coupled nonlinear fractional Drinfel'd-Sokolov-Wilson model with Beta derivative and its modulus instability. *Scientific Reports*, 13, 17528 (2023).
- Khaleel, M.I.; **Safran, M.**; Alfarhood, S.; Zhu, M. Workflow Scheduling Scheme for Optimized Reliability and End-to-End Delay Control in Cloud Computing Using AI-Based Modeling. *Mathematics* **2023**, 11, 4334. <https://doi.org/10.3390/math11204334>
- Baig, M.H.; Abbas, Q.; Ahmad, J.; Mahmood, K.; Alfarhood, S.; **Safran, M.**; Ashraf, I. Differential Evolution Using Enhanced Mutation Strategy Based on Random Neighbor Selection. *Symmetry* **2023**, 15, 1916. <https://doi.org/10.3390/sym15101916>

- Bashir, A.; Abbas, Q.; Mahmood, K.; Alfarhood, S.; **Safran, M.**; Ashraf, I. Improving Performance of Differential Evolution Using Multi-Population Ensemble Concept. *Symmetry* **2023**, *15*, 1818. <https://doi.org/10.3390/sym15101818>
- Zafar, K.; Siddiqui, H.U.R.; Majid, A.; Rustam, F.; Alfarhood, S.; **Safran, M.**; Ashraf, I. Enhancing Diagnosis of Anterior and Inferior Myocardial Infarctions Using UWB Radar and AI-Driven Feature Fusion Approach. *Sensors* **2023**, *23*, 7756. <https://doi.org/10.3390/s23187756>
- Wenbing Wu, Tariq Sadad, **Mejdl Safran**, Sultan Alfarhood & Xiaojian Yuan (2023) Classification of hyperspectral images using fusion of CNN and MiniGCN with SVM, *International Journal of Digital Earth*, 16:1, 3601-3617, DOI: [10.1080/17538947.2023.2229793](https://doi.org/10.1080/17538947.2023.2229793)
- Kanagarathinam, K.; Aruna, S.K.; Ravivarman, S.; **Safran, M.**; Alfarhood, S.; Alrajhi, W. Enhancing Sustainable Urban Energy Management through Short-Term Wind Power Forecasting Using LSTM Neural Network. *Sustainability* **2023**, *15*, 13424. <https://doi.org/10.3390/su151813424>
- Sadad, T.; **Safran, M.**; Khan, I.; Alfarhood, S.; Khan, R.; Ashraf, I. Efficient Classification of ECG Images Using a Lightweight CNN with Attention Module and IoT. *Sensors* **2023**, *23*, 7697. <https://doi.org/10.3390/s23187697>
- Mustak Un Nobi, M.; Rifat, M.; Mridha, M.F.; Alfarhood, S.; **Safran, M.**; Che, D. GLD-Det: Guava Leaf Disease Detection in Real-Time Using Lightweight Deep Learning Approach Based on MobileNet. *Agronomy* **2023**, *13*, 2240. <https://doi.org/10.3390/agronomy13092240>
- Khaleel, M.I.; **Safran, M.**; Alfarhood, S.; Zhu, M. A Hybrid Many-Objective Optimization Algorithm for Job Scheduling in Cloud Computing Based on Merge-and-Split Theory. *Mathematics* **2023**, *11*, 3563. <https://doi.org/10.3390/math11163563>
- Mahmud, I.; Kabir, M.M.; Mridha, M.F.; Alfarhood, S.; **Safran, M.**; Che, D. Cardiac Failure Forecasting Based on Clinical Data Using a Lightweight Machine Learning Metamodel. *Diagnostics* **2023**, *13*, 2540. <https://doi.org/10.3390/diagnostics13152540>
- D. Mistry, M. F. Mridha, **M. Safran**, S. Alfarhood, A. K. Saha and D. Che, "Privacy-Preserving On-Screen Activity Tracking and Classification in E-Learning Using Federated Learning," in *IEEE Access*, vol. 11, pp. 79315-79329, 2023, doi: 10.1109/ACCESS.2023.3299331.
- Alfarhood, S.; Alrayeh, A.; **Safran, M.**; Alfarhood, M.; Che, D. Image-Based Arabian Camel Breed Classification Using Transfer Learning on CNNs. *Appl. Sci.* **2023**, *13*, 8192. <https://doi.org/10.3390/app13148192>
- Islam, M.R.; Kabir, M.M.; Mridha, M.F.; Alfarhood, S.; **Safran, M.**; Che, D. Deep Learning-Based IoT System for Remote Monitoring and Early Detection of Health Issues in Real-Time. *Sensors* **2023**, *23*, 5204. <https://doi.org/10.3390/s23115204>
- Sadad, T.; Aurangzeb, R.A.; **Safran, M.**; Imran; Alfarhood, S.; Kim, J. Classification of Highly Divergent Viruses from DNA/RNA Sequence Using Transformer-Based Models. *Biomedicines* **2023**, *11*, 1323. <https://doi.org/10.3390/biomedicines11051323>
- **Safran, M.** and Che, D. (2019) *Efficient Learning-based Recommendation Algorithms for Top-N Tasks and Top-N Workers in Large-scale Crowdsourcing Systems*, In *Journal ACM Transactions on Information Systems (TOIS)*, vol. 37, issue 1, doi: [10.1145/3231934](https://doi.org/10.1145/3231934).

- **Safran, M.** and Che, D. (2017) *Real-time Recommendation Algorithms for Crowdsourcing Systems*, In Journal of Applied Computing and Informatics, issue 1, vol. 13, pages 47-56, . ISSN 2210-8327, <https://doi.org/10.1016/j.aci.2016.01.001>.
- **Safran, M.**, Al-Qahtani, S., Zhu, M., and Che, D. (2015) *Development of MapReduce and MPI Programs for Motif Search*, In Proceedings of IEEE International Conference on Cluster 2015, Chicago, IL, pp. 500-501. doi: 10.1109/CLUSTER.2015.82
- Hamdi, M., **Safran, M.**, and Hou, W. (2014) *A Security Novel for a Networked Database*, In Proceedings of International Conference on Computational Science and Computational Intelligence (CSCI), pp. 279-284, doi:10.1109/CSCI.2014.55
- Che, D., **Safran, M.**, and Peng, Z. (2013) *From Big Data to Big Data Mining: challenges, issues, and opportunities*. In Database Systems for Advanced Applications, B. Hong, X. Meng, L. Chen, W. Winiwarter, and W. Song, Eds., vol. 7827 of Lecture Notes in Computer Science, pp. 1–15, Springer, Berlin, Germany.
- **Safran, M.** & Althagafi, A. and Che, D. (2012). *Improving Relevance Prediction for Focused Web Crawlers*, in Proceedings of the 2012 IEEE/ACIS 11th International Conference on Computer and Information Science, pp. 161-166, IEEE Computer Society Washington, DC, USA.
- **Safran, M** & Haar, S. (2012). *Arduino and Android Powered Object Tracking Robot*, under the supervision of Dr. Qiang Cheng. *Source code posted in Google Code*: <https://code.google.com/archive/p/android-arduino-object-tracking-robot/>
- **Safran, M** & Haar, S. (2012). *A Method of US Traffic Sign Detection and Recognition*, under the supervision of Dr. Qiang Cheng.