

SAKIB SHAHRIAR, PH.D. CANDIDATE

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EDUCATION

University of Guelph

Ph.D., Computer Science

Research: AI and Privacy of Text Data

CGPA: 95.3% (4.0)

Guelph, ON, Canada

May 2022 – May 2026 (Expected)

American University of Sharjah

M. Sc., Computer Engineering

Thesis: “Machine Learning-Based Approach for EV Charging Behavior”

Specialization: Machine Learning and Big Data Analytics

Sharjah, UAE

January 2019 – June 2021

American University of Sharjah

B. Sc., Computer Engineering

Concentration: Artificial Intelligence and Internet of Things

Senior Project: “An AIoT-based Smart Cafe System”

September 2014 – December 2018

HONORS AND AWARDS

School of Computer Science (SoCS) Summer Doctoral Scholarship, U of Guelph	April 2024
SoCS Travel Grant awarded \$1000 for attending the 19th International Conference on Computer Systems and Applications (2022)	January 2023
International Conference on Machine Learning Technologies (ICMLT) 2022 Best Paper Presentation Award	March 2022
2020/21 AUS Graduate Student Research, Scholarly and Creative Excellence Award, American University of Sharjah (AUS)	June 2021
Graduate Research Excellence Award, Comp. Sci. & Eng. Dept, AUS, 2020	April 2021
Full Graduate Research Fellowship, Office of Graduate Studies, AUS	September 2019 – June 2021
Graduate Teaching Assistantship – Comp. Science & Eng. Dept., AUS	January 2019 – June 2019
ODAA Pioneer Scholarship - AUS Alumni Pioneer	September 2018 – December 2018
Hamid Jafer Scholarship, AUS	September 2017 – June 2018
Dean’s List Scholarship, AUS	January 2017 – September 2017
American University of Sharjah Undergraduate Scholarship	September 2014 – December 2018

RESEARCH INTERESTS

Artificial Intelligence, Information Privacy, Natural Language Processing, Ethical AI, LLMs

PUBLICATIONS (25+ publications, 900+ citations, 13 h-index - [Google Scholar](#))

Refereed Journal Articles

1. Kadhim Hayawi, **Sakib Shahriar**, Hany Alashwal, and Mohamed Adel Serhani. "Generative AI and Large Language Models: A New Frontier in Reverse Vaccinology." *Informatics in Medicine Unlocked*, 2024, doi: <https://doi.org/10.1016/j.imu.2024.101533>.
2. Kadhim Hayawi, **Sakib Shahriar**, and Hakim Hacid. "Climate Data Imputation and Quality Improvement Using Satellite Data." *Journal of Data Science and Intelligent Systems*, 2024, doi: <https://doi.org/10.47852/bonviewJDSIS42022857>.
3. Kadhim Hayawi, **Sakib Shahriar**, and Sujith Mathew. "The imitation game: Detecting human and AI-generated texts in the era of ChatGPT and BARD." *Journal of Information Science*, 2024, doi: <https://doi.org/10.1177/01655515241227531>.
4. Nishith Reddy Mannuru, **Sakib Shahriar**, Zoë A. Teel et al. "Artificial intelligence in developing countries: The impact of generative artificial intelligence (AI) technologies for development." *Information Development*, 2023, doi: <https://doi.org/10.1177/02666669231200628>.
5. **Sakib Shahriar**, Sonal Allana, Mehdi Hazrati Fard, and Rozita Dara. "A Survey of Privacy Risks and Mitigation Strategies in the Artificial Intelligence Life Cycle." *IEEE Access*, vol.11, pp. 61829-61854, 2023, doi: 10.1109/ACCESS.2023.3287195.
6. **Sakib Shahriar** and Kadhim Hayawi. "Let's Have a Chat! A Conversation with ChatGPT: Technology, Applications, and Limitations." *Artificial Intelligence and Applications*, vol. 1, 1, 2023, doi: <https://doi.org/10.47852/bonviewAIA3202939>.
7. **Sakib Shahriar**, Noora Al Roken, and Imran Zuolkernan. "Classification of Arabic Poetry Emotions Using Deep Learning." *Computers*, vol. 12, 5, p.89, 2023, doi: <https://doi.org/10.3390/computers12050089>.
8. Jayroop Ramesh, **Sakib Shahriar**, A. R. Al-Ali, Ahmed Osman, Mostafa F. Shaaban. "Machine Learning Approach for Smart Distribution Transformers Load Monitoring and Management System." *Energies*, vol. 15, 7981, 2022, doi: <https://doi.org/10.3390/en15217981>.
9. **Sakib Shahriar**. "GAN Computers Generate Arts? A Survey on Visual Arts, Music, and Literary Text Generation using Generative Adversarial Network." *Displays*, vol. 73, 102237, 2022, doi: <https://doi.org/10.1016/j.displa.2022.102237>.
10. **Sakib Shahriar** and Noora Al Roken. "How can generative adversarial networks impact computer generated art? Insights from poetry to melody conversion." *International Journal of Information Management Data Insights*, vol. 2, 1, 2022, doi: <https://doi.org/10.1016/j.jjime.2022.100066>.
11. **Sakib Shahriar**, Jayroop Ramesh, Mohammed Towheed, Taha Ameen, Assim Sagahyroon, A. R. Al-Ali. "Narrative Integrated Career Exploration Platform." *Frontiers in Education*, vol. 7, 798950, 2022, doi: 10.3389/educ.2022.798950.
12. **Sakib Shahriar** and A. R. Al-Ali. "Impacts of COVID-19 on Electric Vehicle Charging Behavior: Data Analytics, Visualization, and Clustering." *Applied System Innovation*, vol. 5, 12, 2022, doi: <https://doi.org/10.3390/asi5010012>.
13. Kadhim Hayawi, **Sakib Shahriar**, Mohamed Serhani, Ikbaleh Taleb, and Sujith Mathew. "ANTi-Vax: A Novel Twitter Dataset for COVID-19 Vaccine Misinformation Detection." *Public Health*, vol. 203, pp. 23–30, 2022, doi: 10.1016/j.puhe.2021.11.022.

14. Kadhim Hayawi, **Sakib Shahriar**, Mohamed Serhani, Hany Alashwal, and Mohammad Masud. "Vaccine versus Variants (3Vs): Are the COVID-19 Vaccines Effective against the Variants? A Systematic Review." *Vaccines*, vol. 9, 1305, 2021, doi: <https://doi.org/10.3390/vaccines9111305>.
15. **Sakib Shahriar**, A. R. Al-Ali, Ahmed Osman, Salam Dhou, and Mais Nijim. "Prediction of EV Charging Behavior using Machine Learning." *IEEE Access*, vol. 9, pp. 111576-111586, 2021, doi: 10.1109/ACCESS.2021.3103119.
16. **Sakib Shahriar** and Usman Tariq. "Classifying Maqams of Qur'anic Recitations Using Deep Learning." *IEEE Access*, vol. 9, pp. 117271-117281, 2021, doi: 10.1109/ACCESS.2021.3098415.
17. Edmo Campos, Filipe Vieira, Georgenes Cavalcante, Björn Kjerfve, Mohamed Abouleish, **Sakib Shahriar**, Reem Mohamed, and Arnold Gordon. "Impacts of brine disposal from water desalination plants on the physical environment in the Persian/Arabian Gulf." *Environmental Research Communications*, vol. 2, no. 12, p. 125003, Dec. 2020, doi: 10.1088/2515-7620/abd0ed.
18. **Sakib Shahriar**, A. R. Al-Ali, Ahmed Osman, Salam Dhou, and Mais Nijim. "Machine learning approaches for EV charging behavior: A review." *IEEE Access*, vol. 8, pp. 168980-168993, 2020, doi: 10.1109/ACCESS.2020.3023388.

Refereed Conference Papers

1. Kadhim Hayawi, **Sakib Shahriar**, and Hany Alashwal. "Leveraging Nucleotide Dependencies for Improved mRNA Vaccine Degradation Prediction." *2023 20th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA)*, pp. 1-6. IEEE, 2023, doi: 10.1109/AICCSA59173.2023.10479233.
2. **Sakib Shahriar**, Rozita Dara, and Kadhim Hayawi. "On the Impact of Deep Learning and Feature Extraction for Arabic Audio Classification and Speaker Identification." *2022 IEEE/ACS 19th International Conference on Computer Systems and Applications (AICCSA)*, pp. 1-8, 2022, doi: 10.1109/AICCSA56895.2022.10017889.
3. **Sakib Shahriar** and Kadhim Hayawi. "NFTGAN: Non-Fungible Token Art Generation Using Generative Adversarial Networks." *2022 7th International Conference on Machine Learning Technologies (ICMLT)*, pp. 255-259, 2022, doi: <https://doi.org/10.1145/3529399.3529439>.
4. Muhammad Arbab Arshad, **Sakib Shahriar**, and Assim Sagahyroon. "On the Use of FPGAs to Implement CNNs: A Brief Review." *2020 International Conference on Computing, Electronics & Communications Engineering (iCCECE)*, pp. 230-236, 2020, doi: 10.1109/iCCECE49321.2020.9231243.
5. Felipe Vieira, Edmo J. Campos, Georgenes Cavalcante, Mohamed Abouleish, **Sakib Shahriar**, and Reem Mohamed. "Salt Budget in the Arabian Gulf and Effects of Water Desalination." *Ocean Sciences Meeting 2020*. AGU, 2020.
6. Imran Zuolkernan, Michel Pasquier, **Sakib Shahriar**, Mohammed Towheed, and Shilpa Sujith. "Using BLE beacons and machine learning for personalized customer experience in smart Cafés." *2020 International Conference on Electronics, Information, and Communication (ICEIC)*, pp. 1-6, 2020, doi: 10.1109/ICEIC49074.2020.9051187.

Journal Review Boards (Selected)

- IEEE Access Journal (2020 – Present)
- Computers in Biology and Medicine (2021 – Present)
- Journal of Ambient Intelligence and Humanized Computing (2022 – Present)
- IEEE Transactions on Network and Service Management (2022 – Present)
- Applied Intelligence (2023 – Present)
- PLOS One (2023 – Present)

STUDENT SUPERVISION AND MENTORSHIP

Ala Abu Hilal, Master of Science in Information Technology, Zayed University, Abu Dhabi, UAE

Ala successfully defended his Master's thesis in December 2022. I mentored his research work alongside Dr. Kadhim Hayawi, who was the primary advisor. His work is currently under review in a reputable journal.

Reem Mohamed, B. Sc. in Environmental Sciences, American University of Sharjah, Sharjah, UAE

Reem completed her undergraduate thesis in February 2020. I supervised her experiments alongside Dr. Edmo Campos to find the impacts of salinity on coral larvae. Her work resulted in two publications [J10, C4].

RESEARCH EXPERIENCE

University of Guelph, School of Computer Science

Guelph, ON, Canada

Research Assistant

May 2022 – Present

Working with Dr. Rozita Dara (PI) on developing text-based privacy solutions for AI algorithms.

Zayed University, College of Technological Innovation

Abu Dhabi, UAE

Research Assistant

June 2021 – June 2022

Worked with Dr. Kadhim Hayawi (PI) on COVID-19 vaccine effects, image generation, and classification using deep learning. This research led to two journal [J6, J7] and two conference [C1, C2] publications.

American University of Sharjah, Gulf Environments Research Institute

Sharjah, UAE

Graduate Research Assistant

September 2019 – May 2021

Worked with Dr. Edmo Campos (PI) on environmental impacts of desalination on Persian Gulf temperature and marine lives. This research led to one journal [J10] and one conference [C4] publications.

TEACHING EXPERIENCE

University of Guelph, College of Engineering and Physical Sciences, McLaughlin Library

Guelph, ON, Canada

Graduate Teaching Assistant

September 2022 – Present

Facilitated with the instruction of several courses, including Information Retrieval, Privacy in AI, Writing Support TA, and Software Architecture of AI Systems.

American University of Sharjah, Department of Computer Science & Engineering

Sharjah, UAE

Graduate Teaching Assistant

January 2019 – June 2020

Supervised undergraduate labs, exams, and grading. Courses: Digital systems and FPGA design, Introduction to programming.

Teacher Assistant

Assisted in the instruction of Communications Network undergraduate course.

September 2018 – December 2018

Workshops Conducted

University of Guelph, McLaughlin Library

Guelph, ON, Canada

Writing the Literature Review" Workshop for IDEV 3300: Engaging in Development Practice

January 2024

Conducted a 50-minute in-person workshop for 30 undergraduate students in the College of Social and Applied Human Sciences at the University of Guelph. This workshop focused on developing and refining research questions, organizing literature, and integrating sources to create coherent and impactful reviews. Through interactive discussions, practical examples, and guided exercises, I facilitated the development of skills necessary to understand the purpose, structure, and key elements of literature reviews. Additionally, we discussed strategies for effective research and academic writing.

PROFESSIONAL EXPERIENCE

Dubai Electricity and Water Authority (DEWA)

Dubai, UAE

Data Scientist Research Intern (R&D Department)

July 2019 – August 2020

Used Machine Learning to predict hourly solar radiation using temporal features and historical data with less than 10% error. Performed in-depth study of multiple ground weather station in comparison with satellite data for data quality control. Identified a faulty sensor in a weather station by analyzing their Bland-Altman plots.

Odyssey.ai

Dubai, UAE

Co-Founder and Data Scientist

February 2020 – March 2022

Powered by AI algorithms, Odyssey is an experiential career exploration platform where students can navigate their way through interactive journeys of different potential careers. I led research on predictive algorithms and conducted multiple interviews with school and university management. We published one journal article [J4].

Cerebro Analytics

Sharjah, UAE

Co-Founder and Computer Vision Engineer

June 2019 – February 2020

The startup was a B2B SaaS solution that provided a holistic data and analytics platform for retailers to enhance customer retention and in-store operations. I implemented a detection algorithm from CCTV footages that can extract crowd count, peak time, and dwell time metrics in real-time.

PROFESSIONAL AFFILIATIONS

Upsilon Pi Epsilon, Alpha Chapter, American University of Sharjah, September 2017 – Present
UAE.

VOLUNTEERING AND EXTRACURRICULAR ACTIVITIES

Abu Dhabi Digital Authority (ADDA)

Runners up in ADDATHON hackathon organized by ADDA and November 2019
mentored by IBM. Worked on Wildlife Management using Computer
Vision in collaboration with Al Ain Zoo

American University of Sharjah

Executive Assistant of Google Student Club at AUS September 2018 – December 2018
President of Bangladeshi Cultural Club at AUS September 2017 – July 2018
Activities Coordinator of AUS Multicultural Student Association January 2017 – July 2017

TECHNICAL SKILLS

Machine Learning: Supervised (Regression, classification) and Unsupervised (Cluster analysis)
Deep Learning: Text, image, and audio classification with Deep ANN, CNN, and LSTMs. Natural language
processing (Arabic and English) and Generative Adversarial Networks
Programming: Python, R, and SQL
Libraries: Keras, TensorFlow, OpenCV, Sklearn