

# SAKIB SHAHRIAR, PH.D. CANDIDATE

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## EDUCATION

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**University of Guelph** Guelph, ON, Canada  
*Ph.D., Computer Science* May 2022 – June 2026 (Expected)  
Research area: Privacy in LLMs and AI Systems  
CGPA: 95.3% (4.0)

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**American University of Sharjah** Sharjah, UAE  
*M. Sc., Computer Engineering* January 2019 – June 2021  
Thesis: “Machine Learning-Based Approach for EV Charging Behavior”  
Specialization: Machine Learning and Big Data Analytics

**American University of Sharjah** September 2014 – December 2018  
*B. Sc., Computer Engineering*  
Concentration: Artificial Intelligence and Internet of Things  
Senior Project: “An AIoT-based Smart Cafe System”

## HONORS AND AWARDS

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School of Computer Science (SoCS) 2025 Summer Doctoral Scholarship, U of Guelph	April 2025
Braithwaite Conference Travel Grant awarded \$2950 for presenting at the 2024 IEEE International Conference on Data Mining (ICDM)	November 2024
School of Computer Science (SoCS) 2024 Summer Doctoral Scholarship, U of Guelph	April 2024
SoCS Travel Grant awarded \$1000 for presenting at 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  
Hamid Jafer Scholarship, AUS  
Dean's List Scholarship, AUS  
American University of Sharjah Undergraduate Scholarship

September 2018 – December 2018  
September 2017 – June 2018  
January 2017 – September 2017  
September 2014 – December 2018

## RESEARCH INTERESTS

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Large Language Models (LLMs), Artificial Intelligence, Information Privacy, Natural Language Processing, Ethical AI, Multimodal AI

**PUBLICATIONS** (35+ publications; 2800+ citations; h-index: 19, [Google Scholar](#), as of April 2026)

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### Refereed Journal Articles

1. Kadhim Hayawi and **Sakib Shahriar**. "Generative AI for Text-to-Video Generation: Recent Advances and Future Directions." *Digital*, vol. 6, no. 1, p.23, 2026, doi: <https://doi.org/10.3390/digital6010023>.
2. **Sakib Shahriar**, Rozita Dara, and Fattane Zarrinkalam. "Mitigating authorship attribution in social media texts: A privacy by translation approach." *IEEE Access*, vol. 13, pp. 185709-185725, 2025, doi: <https://doi.org/10.1109/ACCESS.2025.3624312>.
3. Brady D. Lund and **Sakib Shahriar**. "Quantum Computing: A Concise Introduction." *Encyclopedia*, vol. 5, no. 4: 173, 2025, doi: <https://doi.org/10.3390/encyclopedia5040173>.
4. **Sakib Shahriar**, Rozita Dara, and Rajen Akalu. "A Comprehensive Review of Current Trends, Challenges, and Opportunities in Text Data Privacy." *Computers & Security*, vol.151, 104358, 2025, doi: <https://doi.org/10.1016/j.cose.2025.104358>.
5. **Sakib Shahriar** and Rozita Dara. "Priv-IQ: A Benchmark and Comparative Evaluation of Large Multimodal Models on Privacy Competencies." *AI*, vol. 6, 2: 29, 2025, doi: <https://doi.org/10.3390/ai6020029>.
6. Kadhim Hayawi, **Sakib Shahriar**, Sujith Samuel Mathew et al. "Diving into recession: the collective knowledge of online users as an early warning system for recessionary expectations." *Information & Management*, vol. 63, no.1, 104252, 2025, doi: <https://doi.org/10.1016/j.im.2025.104252>.
7. **Sakib Shahriar**, Maria G. Corradini, Shayan Sharif, Medhat Moussa, and Rozita Dara. "The role of generative artificial intelligence in digital agri-food." *Journal of Agriculture and Food Research*, vol. 20, 101787, 2025, doi: <https://doi.org/10.1016/j.jafr.2025.101787>.
8. 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*, vol.41, no.3, 1036-1054, 2025, doi: <https://doi.org/10.1177/02666669231200628>.
9. Kadhim Hayawi, **Sakib Shahriar**, and Hakim Hacid. "Climate data imputation and quality improvement using satellite data." *Journal of Data Science and Intelligent Systems*, vol. 3, no. 2, 87-97, 2025, doi: <https://doi.org/10.47852/bonviewJDSIS42022857>.
10. **Sakib Shahriar**, Brady D. Lund, Nishith Reddy Mannuru et al. "Putting gpt-4o to the sword: A comprehensive evaluation of language, vision, speech, and multimodal proficiency." *Applied Sciences*, vol. 14, no. 17, 2024, doi: <https://doi.org/10.3390/app14177782>.
11. 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*, vol. 48, 101533, 2024, doi: <https://doi.org/10.1016/j.imu.2024.101533>.

12. 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>.
13. **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.
14. **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>
15. **Sakib Shahriar**, Noora Al Roken, and Imran Zualkernan. "Classification of Arabic Poetry Emotions Using Deep Learning." *Computers*, vol. 12, 5, p.89, 2023, doi: <https://doi.org/10.3390/computers12050089>.
16. 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>.
17. **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>.
18. **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.ijime.2022.100066>.
19. **Sakib Shahriar**, Jayroop Ramesh, Mohammed Towheed, Taha Ameen, Assim Sagahyoon, A. R. Al-Ali. "Narrative Integrated Career Exploration Platform." *Frontiers in Education*, vol. 7, 798950, 2022, doi: 10.3389/feduc.2022.798950.
20. **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>.
21. Kadhim Hayawi, **Sakib Shahriar**, Mohamed Serhani, Iqbal 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.
22. 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>.
23. **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.
24. **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.
25. 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.
26. **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 Proceedings

1. Kadhim Hayawi and **Sakib Shahriar**. "Dear LLM, Why Are They Complaining? On Root Cause

- Analysis (RCA) In Customer Service Automation Using Large Language Models (LLMs)." *2025 IEEE 5th International Conference on Human-Machine Systems (ICHMS)*, pp. 338-343. IEEE, 2025, doi: <https://doi.org/10.1109/ICHMS65439.2025.11154153>.
2. Kadhim Hayawi, **Sakib Shahriar**, and A. R. Al-Ali. "Ethical Considerations in Artificial Intelligence (AI) Applications in Smart Grid." *2025 7th International Youth Conference on Radio Electronics, Electrical and Power Engineering (REEPE)*, pp. 1-6. IEEE, 2025, doi: <https://doi.org/10.1109/REEPE63962.2025.10971096>.
  3. **Sakib Shahriar** and Rozita Dara. "PriSM: Privacy-Preserving Social Media Text Processing and Analytics Framework." *2024 IEEE International Conference on Data Mining Workshops (ICDMW)*, pp. 59-66. IEEE, 2024, doi: 10.1109/ICDMW65004.2024.00014.
  4. Kadhim Hayawi and **Sakib Shahriar**. "Care-by-Design: Enhancing Customer Experience through Empathetic AI Chatbots." *2024 IEEE International Conference on Data Mining Workshops (ICDMW)*, pp. 75-81. IEEE, 2024, doi: 10.1109/ICDMW65004.2024.00016.
  5. Kadhim Hayawi, **Sakib Shahriar**, and Hakim Hacid. "On Digital Art Generation Using Generative Adversarial Networks." *2024 International Conference on Electrical, Computer and Energy Technologies (ICECET)*, pp. 1-6. IEEE, 2024, doi: 10.1109/ICECET61485.2024.10698003.
  6. 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.
  7. **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.
  8. **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>.
  9. Muhammad Arbab Arshad, **Sakib Shahriar**, and Assim Sagahyoon. "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.
  10. 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.
  11. Imran Zualkernan, 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.

## EDITORIAL AND ACADEMIC SERVICE

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### Editorial Board Member, *Information Services & Use* (January 2026 – Present)

- Serve on the editorial board of an interdisciplinary information science journal currently undergoing strategic renewal.
- Review manuscripts within areas of expertise and provide feedback on journal operations, outcomes, and future direction.
- Contribute to editorial discussions, including opportunities for special issue development.

### Committee Member, CWCA/ACCR 2026 Annual Conference (2025 – 2026)

- Co-developed and disseminated Call for Papers; advised on program formats and keynotes.

- Assisted with proposal reviews and selection of the Assistant Conference Chair.
- Supported conference operations (registration, tech, session moderation) and promotion.

**Handling Editor for Frontiers in Robotics and AI (2025 – Present)**

- Perform initial technical and ethical suitability checks and desk-reject when appropriate.
- Coordinate timely peer review, inviting additional reviewers as needed.
- Mediate author–reviewer dialogue; ensure rigorous, fair editorial decisions.

**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**

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**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.

**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 [J24, C10].

**RESEARCH EXPERIENCE**

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<p><b>University of Guelph</b>, School of Computer Science <i>Research Assistant</i></p> <p>Conducting research with Dr. Rozita Dara (PI) on developing text-based privacy solutions for AI algorithms.</p>	<p>Guelph, ON, Canada May 2022 – Present</p>
<p><b>Zayed University</b>, College of Technological Innovation <i>Research Assistant</i></p> <p>Worked with Dr. Kadhim Hayawi (PI) on COVID-19 vaccine effects, image generation, and classification using deep learning. This research led to two journal [J20, J21] and three conference publications [C5, C6, C8].</p>	<p>Abu Dhabi, UAE June 2021 – June 2022</p>
<p><b>American University of Sharjah</b>, Gulf Environments Research Institute <i>Graduate Research Assistant</i></p> <p>Worked with Dr. Edmo Campos (PI) on environmental impacts of desalination on Persian Gulf temperature and marine life. This research led to one journal [J24] and one conference publication [C10].</p>	<p>Sharjah, UAE September 2019 – May 2021</p>

**TEACHING EXPERIENCE**

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<p><b>University of Guelph</b>, School of Computer Science, College of Engineering and Physical Sciences, McLaughlin Library</p> <p><i>Graduate Teaching Assistant</i></p> <p>Assisted with instruction, grading, and student support across courses in computer science, data science, mathematics, and academic writing, including <b>Information Retrieval, Privacy in AI, Software Architecture of AI Systems, Structure and Application of Microcomputers, Introduction to Intelligent Systems, Theory of Computation, Systems Programming, Discrete Structures in Computing II, Analysis of Big Data, Data Manipulation and Visualization, Calculus I, and Writing Support.</b></p>	<p>Guelph, ON, Canada</p> <p>September 2022 – Present</p>
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<p><b>American University of Sharjah</b>, Department of Computer Science &amp; Engineering</p> <p><i>Graduate Teaching Assistant</i></p> <p>Supervised undergraduate labs, exams, and grading. Courses: Digital systems and FPGA design, Introduction to programming.</p> <p><i>Teaching Assistant</i></p> <p>Assisted in facilitating Communications Network course.</p>	<p>Sharjah, UAE</p> <p>January 2019 – June 2020</p> <p>September 2018 – December 2018</p>
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### Workshops

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<p style="text-align: center;"><b>University of Guelph</b>, McLaughlin Library</p> <p><i>Academic Writing Workshop</i> for ENGG*3100 Engineering and Design III</p> <p>Led two 90-minute, in-person sessions for ENGG*3100, guiding undergraduate engineers through constructing persuasive arguments while sharpening cohesion and clarity. Quick mini lessons on paragraph architecture, reverse outlining, and concision were paired with hands-on revision drills and peer critiques, enabling students to diagnose and strengthen their drafts in real time.</p>	<p>Guelph, ON, Canada</p> <p>February 2025</p>
<p><i>Writing the Literature Review Workshop</i> for IDEV 3300: Engaging in Development Practice</p> <p>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.</p>	<p>January 2024</p>

### PROFESSIONAL EXPERIENCE

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<p><b>Dubai Electricity and Water Authority (DEWA)</b></p> <p><i>Data Scientist Research Intern (R&amp;D Department)</i></p> <p>Used deep learning to predict hourly solar radiation with less than 10% error. Performed in-depth study of multiple ground weather stations in comparison with satellite data for data quality control. Identified a faulty sensor in a weather station by analyzing their Bland-Altman plots.</p>	<p>Dubai, UAE</p> <p>July 2019 – August 2020</p>
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**Odyssey.ai***Co-Founder and Data Scientist*

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 [J16].

Dubai, UAE

February 2020 – March 2022

**Cerebro Analytics***Co-Founder and Computer Vision Engineer*

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 footage that can extract crowd count, peak time, and dwell time metrics in real-time.

Sharjah, UAE

June 2019 – February 2020

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**PROFESSIONAL AFFILIATIONS**

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

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**VOLUNTEERING AND EXTRACURRICULAR ACTIVITIES**

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**Abu Dhabi Digital Authority (ADDA)**

Runners up in ADDATHON hackathon by ADDA and mentored by IBM. Project: Wildlife Management using Computer Vision in collaboration with Al Ain Zoo

November 2019

**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

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**TECHNICAL SKILLS**

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**Programming:** Python, R, SQL, JavaScript/TypeScript

**Artificial Intelligence and Machine Learning:** Supervised and unsupervised learning, natural language processing, information retrieval, privacy-preserving AI, large language models, retrieval-augmented generation, multimodal AI, and evaluation of AI systems

**Deep Learning and Frameworks:** TensorFlow, Keras, Scikit-learn, OpenCV; text, image, and audio modeling with neural networks including CNNs and LSTMs

**Web and Software Development:** React, Supabase, full-stack web development, API integration, database-backed applications, authentication, and research/software prototyping

**Computing Environments:** Unix/Linux and shell scripting