SAKIB SHAHRIAR, Ph.D. CANDIDATE

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EDUCATION

University of Guelph Guelph, ON, Canada

Ph.D., Computer Science May 2022 – May 2026 (Expected)

Research: AI and Privacy of Text Data

CGPA: 95.3% (4.0)

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

B. Sc., Computer Engineering September 2014 – December 2018

Concentration: Artificial Intelligence and Internet of Things Senior Project: "An AIoT-based Smart Cafe System"

HONORS AND AWARDS

School of Computer Science Summer Doctoral Scholarship, U of Guelph April 2024

Jefferson Lab Student Travel Grant awarded \$1000 for attending the 19th

January 2023

International Conference on Computer Systems and Applications (2022)

International Conference on Machine Learning Technologies (ICMLT) 2022 March 2022

Best Paper Presentation Award

2020/21 AUS Graduate Student Research, Scholarly and Creative Excellence June 2021

Award, American University of Sharjah (AUS)

CSE Graduate Research Excellence Award, Comp. Science & Eng. Dept, April 2021

AUS, 2020

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 20018

Dean's List Scholarship, AUS

January 2017 – September 2017

American University of Sharjah Undergraduate Scholarship, AUS

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

- 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.
- 2. 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.
- 3. **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.
- 4. **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
- 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.
- 6. 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.
- 7. **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.
- 8. **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.jjimei.2022.100066.
- 9. **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/feduc.2022.798950.
- 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.
- 11. Kadhim Hayawi, **Sakib Shahriar**, Mohamed Serhani, Ikbal 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.
- 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.
- 13. **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.

- 14. **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.
- 15. 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.
- 16. **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

- 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.
- 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.
- 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.
- 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.

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

Sharjah, UAE

& Engineering

January 2019 – June 2020

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

programming.

Graduate Teaching Assistant

September 2018 – December

Teacher Assistant

Assisted in the instruction of Communications Network undergraduate course.

nunications Network 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 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. The session was delivered in person, utilizing multimedia tools to enhance engagement.

PROFESSIONAL EXPERIENCE

Dubai Electricity and Water Authority (DEWA)

Data Scientist Research Intern (R&D Department)

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.

Odysy.ai

Co-Founder and Data Scientist

Powered by AI algorithms, Odysy 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

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

Dubai, UAE

July 2019 - August 2020

Dubai, UAE

February 2020 – March 2022

Sharjah, UAE

June 2019 – February 2020

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

President of Bangladeshi Cultural Club at AUS

Activities Coordinator of AUS Multicultural Student Association

September 2018 – December 2018

September 2017 – July 2018

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