Sher Badshah

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Education

Ph.D. in Computer Science — Sep. 2022 – Present
Dalhousie University — HyperMatrix Lab — Halifax, Nova Scotia, Canada

Research Interests

- Natural Language Processing
- Model Uncertainty
- Conformal Prediction
- Evaluation

Employment

Research Assistant, Department of Sociology and Social Anthropology — Sep. 2025 – Present
Dalhousie University — Advisor: Dr. Deena Abul-Fottouh — Halifax, NS, Canada

Teaching Assistant — Summers 2023, 2024, 2025
Dalhousie University — CSCI 4146/6409: Process of Data Science — Halifax, NS, Canada

Teaching Assistant — Sep. 2022 – Jan. 2023
Dalhousie University — PHIL 2490/CSCI 3101: Ethics in Computer Science — Halifax, NS, Canada

Remote Data Scientist — Jan. 2020 – Sep. 2021

Graduate Research Assistant — Mar. 2018 – Jan. 2020
COMSATS University Islamabad — Ministry of IT, "Adopting DevOps in Pakistan" — Islamabad, Pakistan

Visiting Lecturer — Mar. 2017 – Jan. 2018
Grafton College Islamabad — Islamabad, Pakistan

Software Engineer — Sep. 2016 – Feb. 2017
Red Stonz Tech — Pakistan

Publications

Sher Badshah, Ali Emami, and Hassan Sajjad (2026). "Judge, Retrieve, or Abstain: Uncertainty-Guarded LLM Judging with Provable Risk Guarantees". In: *Third Conference on Language Modeling (COLM).*

Sher Badshah, Ali Emami, and Hassan Sajjad (2026). "SAGE: A Search-Augmented Evaluation of Large Language Models on Free-Form QA". In: *Proceedings of the 64th Annual Meeting of the Association for Computational Linguistics (ACL).* Association for Computational Linguistics. Acceptance rate 18.9% (main conference).

Sher Badshah, Ali Emami, and Hassan Sajjad (2026). "SCOPE: Selective Conformal Optimized Pairwise LLM Judging". In: *Proceedings of the 43rd International Conference on Machine Learning (ICML).* Acceptance rate 26.6% (6,352 of 23,918 submissions).

Sher Badshah, Moamen Moustafa, and Hassan Sajjad (2025). "CLEV: LLM-Based Evaluation Through Lightweight Efficient Voting for Free-Form Question Answering". In: *Findings of the Association for Computational Linguistics: IJCNLP-AACL 2025*. Association for Computational Linguistics, pp. 1513–1531.

Sher Badshah and Hassan Sajjad (2025). "Reference-Guided Verdict: LLMs-as-Judges in Automatic Evaluation of Free-Form Text". In: *Proceedings of the 9th Widening NLP Workshop*, pp. 251–267.

Sher Badshah and Hassan Sajjad (2024). "Quantifying the Capabilities of LLMs Across Scale and Precision". In: *arXiv preprint arXiv:2405.03146*.

Sher Badshah (2022). "Challenges to Project Management in Distributed Software Development: A Systematic Literature Review". In: *Evolving Software Processes: Trends and Future Directions*. Wiley, pp. 241–251.

Arif Ali Khan, **Sher Badshah**, et al. (2022). "Ethics of AI: A Systematic Literature Review of Principles and Challenges". In: *Proceedings of the 26th International Conference on Evaluation and Assessment in Software Engineering (EASE)*. ACM, pp. 394–401.

Sher Badshah, Arif Ali Khan, Shahid Hussain, and Bilal Khan (2021). "What Users Really Think About the Usability of Smartphone Applications: A Diversity-Based Empirical Investigation". In: *Multimedia Tools and Applications* 80.6, pp. 9177–9207.

Peng Zhou, Arif Ali Khan, Peng Liang, and **Sher Badshah** (2021). "System and Software Processes in Practice: Insights from Chinese Industry". In: *Proceedings of the 25th International Conference on Evaluation and Assessment in Software Engineering (EASE)*. ACM, pp. 394–401.

Sher Badshah, Arif Ali Khan, and Bilal Khan (2020). "Towards Process Improvement in DevOps: A Systematic Literature Review". In: *Proceedings of the 24th International Conference on Evaluation and Assessment in Software Engineering (EASE)*. ACM, pp. 427–433.

Bilal Khan, Danish Iqbal, and **Sher Badshah** (2020). "Cross-Project Software Fault Prediction Using Data Leveraging Techniques to Improve Software Quality". In: *Proceedings of the 24th International Conference on Evaluation and Assessment in Software Engineering (EASE)*. ACM, pp. 434–438.

Honors & Awards

Best Poster Award — 2023
Dalhousie University

Nova Scotia Graduate Scholarship — 2021
Dalhousie University

Student Assistantship — 2019
COMSATS University, Department of Computer Science

Outstanding Teaching Award — 2017
Grafton College, Office of Undergraduate Studies

Student Travel Award — 2017
Ministry of Science and Technology, Pakistan

Professional Affiliations & Services

- **Reviewer:** International Conference on Machine Learning (ICML); Conference on Neural Information Processing Systems (NeurIPS); ACL Rolling Review (ARR); Conference on Language Modelling (COLM); Evaluation and Assessment in Software Engineering (EASE).
- **Program Committee Member:** DevOps Quality Management Workshop, Norway (EASE 2020, 2021, 2022).

- **Professional Memberships:** Institute of Electrical and Electronics Engineers (IEEE); National Computing Education Accreditation Council (NCEAC); Pakistan Software Board (PSB); Khyber Pakhtunkhwa Information Technology Board (KPITB).
- **Committee Member:** Student Representative, Software Engineering Program (2013–2017); Software Engineering Program Undergraduate Admissions Committee (2018).