

Curriculum Vitae

Contact Information

Qasim Umer

Assistant Professor

COMSATS University Islamabad
Vehari, Pakistan.

Experience: 10 Years (3.6 Years - Post Ph.D.)

DOB: 24-02-1984

Nationality: Pakistani

Phone: +82-1021583489, +92-3004003489

Email: qasimumer@hanyang.ac.kr, qasimumer@cuivehari.edu.pk

EPP: <http://ww2.comsats.edu.pk/faculty/FacultyDetails.aspx?Uid=19052>

Google Scholar: <https://scholar.google.com/citations?user=S-or4aMAAAAJ&hl=en> (**h-index = 12**)

Web of Science: <https://publons.com/researcher/4352800/qasim-umer> (**h-index = 8**)

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=55520728200> (**h-index = 9**)

Summary

- I am pursuing a long-term objective: “**Machine Learning-based Classification**” in Software Engineering, Software Define Networks, and Edge Computing.
- My current research areas are *Machine/Deep/Federated Learning-based Solutions to Irrigation Problems* and *Automation of Software Engineering Problems*.
- I have pioneered a new research area called “*approval prediction of enhancement reports*”, which helps developers by highlighting the enhancement reports’ higher probability of acceptance.
- My work has been published in *top-tier journals and conferences* such as *Empirical Software Engineering*, *Journal of Systems and Software*, *International Conference on Software Analysis, Evolution and Reengineering*, *IEEE Transaction on Reliability*, and *IEEE Access*.

Publications

Journal Papers

First Author

1. **Q. Umer**, R. N. Bashir, M. R. Ashraf, X. Zhai, and H. Ghous, “Ensemble Deep Learning Based Prediction of Fraudulent Cryptocurrency Transactions”, in *IEEE Access*, vol. 11, pp. 95213-95224, 2023. (**IF: 3.9, Q1**)
2. **Q. Umer**, H. Liu, and I. Illahi, “CNN-Based Automatic Prioritization of Bug Reports,” in *IEEE Transactions on Reliability*, vol. 69, pp. 1341-1354, 2020. (**IF: 5.9, Q1**)
3. **Q. Umer**, H. Liu, and Y. Sultan, “Sentiment based approval prediction for enhancement reports”, in *Journal of Systems and Software*, vol. 155, pp. 57-69, 2019. (**IF: 3.5, Q1**)
4. **Q. Umer**, H. Liu, and Y. Sultan, “Emotion based automated priority prediction for bug reports”, in *IEEE Access*, vol. 6, pp. 35743 - 35752, 2018. (**IF: 3.9, Q1**)

Corresponding Author

5. T. Rashid, S. Anwar, M. A. Jaffar, H. Hakami, R. Baashirah, and **Q. Umer**, “Success Prediction of Crowdsourced Projects for Competitive Crowdsourced Software Development”, in *Sustainability*, vol. 14, pp. 489, 2023. (**IF: 3.9, Q1**)
6. M. Tausif, S. Dilshad, **Q. Umer**, M. W. Iqbal, Z. Latif, C. Lee, and R. N. Bashir, “Ensemble Learning-Based Estimation of Reference Evapotranspiration (ETo)”, in

- Internet of Things; Engineering Cyber Physical Human Systems*, vol. 24, pp. 100973, 2023. **(IF: 5.9, Q1)**
7. M. R. Ashraf, Y. Jana, **Q. Umer**, M. A. Jaffar, S. Chung, and W. Y. Ramay, “BERT Based Sentiment Analysis for Low-resourced Languages: A Case Study of Urdu Language”, in *IEEE Access*, vol. 11, pp. 110245 - 110259, 2023. **(IF: 3.9, Q1)**
 8. X. Meng, S. Li, M. M. Malik and **Q. Umer**, “Machine-Learning-Based Suitability Prediction for Mobile Applications for Kids”, in *Sustainability*, vol. 14, pp. 12400, 2022. **(IF: 3.9, Q2)**
 9. H. U. Iftikhar, A. U. Rehman, O. A. Kalugina, **Q. Umer** and H. A. Khan, “Deep Learning-Based Correct Answer Prediction for Developer Forums”, in *IEEE Access*, vol. 9, pp. 128166-128177, 2021. **(IF: 3.9, Q1)**
 10. J. Cheng, M. Sadiq, O. A. Kalugina, S. A. Nafees and **Q. Umer**, “Convolutional Neural Network Based Approval Prediction of Enhancement Reports”, in *IEEE Access*, vol. 9, pp. 122412-122424, 2021. **(IF: 3.9, Q1)**
 11. L. Qiao, X. Li, **Q. Umer**, and P. Guo, “Deep Learning Based Software Defect Prediction”, in *Neurocomputing*, vol. 385, pp. 100-110, 2019. **(IF: 6, Q1)**

Collaborations

12. A. Ali, Y. Xia, **Q. Umer**, and M. Osman, “BERT Based Severity Prediction of Bug Reports for the Maintenance of Mobile Applications”, in *Journal of Systems and Software*, vol. 208, pp. 111898, 2023. **(IF: 3.5, Q1)**
13. J. Xin, M. Faheem, **Q. Umer**, M. Tausif, and M. W. Ashraf, “Ensemble Learning Based Defect Detection of Laser Sintering”, in *IET Optoelectronics*, pp. 1-11, 2023. **(IF: 1.6, Q3)**
14. K. Zhang, Y. Qing, **Q. Umer**, and F. Asmi, “How construction and demolition waste management has addressed sustainable development goals: Exploring academic and industrial trends”, in *Journal of Environmental Management*, vol. 345, pp. 118823, 2023. **(IF: 8.7, Q1)**
15. Z. Latif, **Q. Umer**, C. Lee, K. Sharif, F. Li and S. Biswas, “A Machine Learning-Based Anomaly Prediction Service for Software-Defined Network”, in *Sensors*, vol. 22, pp. 8434, 2022. **(IF: 3.9, Q2)**
16. Q. Ye, **Q. Umer**, R. Zhou, A. Asmi and F. Asmi, “How publications and patents are contributing to the development of municipal solid waste management: Viewing the UN Sustainable Development Goals as ground zero”, in *Journal of Environmental Management*, vol. 325, pp. 116496, 2023. **(IF: 8.7, Q1)**
17. Z. Liu, R. N. Bashir, S. Iqbal, M. M. A. Shahid, M. Tausif and **Q. Umer**, “Internet of Things (IoT) and Machine Learning Model of Plant Disease Prediction—Blister Blight for Tea Plant”, in *IEEE Access*, vol. 10, pp. 44934-44944, 2022. **(IF: 3.9, Q1)**
18. K. Sattar, **Q. Umer**, D. G. Vasbieva, S. Chung, Z. Latif and C. Lee, “A Multi-Layer Network for Aspect-Based Cross-Lingual Sentiment Classification”, in *IEEE Access*, vol. 9, pp. 133961-133973, 2021. **(IF: 3.9, Q1)**
19. Illahi, H. Liu, **Q. Umer**, and N. Niu, “Machine Learning based Success Prediction for Crowdsourcing Software Projects”, in *Journal of Systems of Software*, vol. 178, pp. 110965, 2021. **(IF: 3.5, Q1)**
20. S. Nyamawe1, H. Liu, N. Niu, **Q. Umer**, and Z. Niu, “Feature requests-based recommendation of software refactorings”, in *Empirical Software Engineering*, vol. 25, pp. 4315-4347, 2020. **(IF: 4.1, Q1)**
21. W. Y. Ramay, **Q. Umer**, X. C. Yin, C. Zhu, and I. Illahi, “Deep Neural Network-Based Severity Prediction of Bug Reports”, in *IEEE Access*, vol. 7, pp. 46846 -

- 46857, 2019. (IF: 3.9, Q1)
22. Illahi, H. Liu, and Q. Umer, “An Empirical Study on Competitive Crowdsourcing Software Development: Motivating and Inhibiting Factors”, in *IEEE Access*, vol. 7, pp. 62042 - 62057, 2019. (IF: 3.9, Q1)
 23. P. Mundy, Q. Umer, and A. Foster, “Examining the Potential for Channel Shift in the UK Through Multiple Lenses”, in *The Electronic Journal of e-Government (EJEG)*, vol. 9, pp. 203 - 213, (2011).

Conference Papers

1. Q. Umer, Z. Naveed, C. Lee, A. Ali, and M. K. Saeed, “Convolutional Neural Network Based Identification of Respiratory Disease (CNN-IRD)”, in *the 14th International Conference on ICT Convergence*, Jeju, South Korea, 2023.
2. M. Waseem, Q. Umer, C. Lee, S. Chung, and Z. Latif, “Deep Learning-Based Event Prediction for Text Analysis”, in *the 14th International Conference on ICT Convergence*, Jeju, South Korea, 2023.
3. I. Illahi, H. Liu, Q. Umer, and N. Niu, “Machine Learning based Success Prediction for Crowdsourcing Software Projects”, in *the Journal-first track of the 36th IEEE/ACM International Conference on Automated Software Engineering (ASE)*, Virtual Mode, 2021.
4. G. Li, H. Liu, J. Jin, and Q. Umer, “Deep Learning Based Identification of Suspicious Return Statements”, in *IEEE 27th International Conference on Software Analysis, Evolution and Reengineering (SANER)*, pp. 480-491, London, ON, Canada, 2020.
5. S. Nyamawel, H. Liu, N. Niu, Q. Umer, and Z. Niu, “Automated Recommendation of Software Refactorings based on Feature Requests”, in *the Proceedings of the IEEE 27th International Requirements Engineering Conference (RE19)*, pp. 187-198, Jeju Island, South Korea, 2019.
6. Q. Umer, and D. P. Mundy, “Semantically Intelligent Semi-Automated Ontology Integration”, in *the Proceedings of the World Congress on Engineering*, pp. 1101-1106, London, UK, 2012.
7. D. P. Mundy, and Q. Umer, “United Kingdom Local Authority Challenges in the use of Twitter and Other Social Media”, in *the Proceedings of the Second International Conference on Social EcoInformatics*, pp. 76 - 81, Venice, Italy, 2012.
8. P. Mundy, and Q. Umer, “An Analysis of UK Council Use of the Social Network - Twitter”, in *the Proceedings of the 12th European Conference on E-Government*, pp. 502-511, Barcelona, Spain, 2012.
9. P. Mundy, Q. Umer, and A. Foster, “Channel Shift - A UK Customer Response”, in *the Proceedings of the 11th European Conference on E-Government*, pp. 406-412, Ljubljana, Slovenia, 2011.

Honors and Awards

- **Excellent Student Award** (2018-19), Beijing Institute of Technology, China.
- **Ph.D. Scholarship** (2016-20), Chinese Government Scholarship Council, China.
- **M-Res Scholarship** (2009-12), Faisal Movers, Pakistan.
- **Best Paper Award Winner** (2012), “United Kingdom Local Authority Challenges in the use of Twitter and Other Social Media”, the Second International Conference on Social EcoInformatics, Venice, Italy.
- **Best Paper Award Winner** (2012), “Semantically Intelligent Semi-Automated Ontology Integration”, the World Congress on Engineering, London, UK.

- **MS Scholarship** (2008-09), Faisal Movers, Pakistan.

Professional Activities

Reviewer of the following Journals:

- IEEE Transactions on Industrial Informatics (**IF: 12.3**)
- IEEE Internet of Things Journal (**IF: 10.6**)
- IEEE Communications Magazine (**IF: 11.2**)
- ACM Transactions on Multimedia Computing Communications and Applications (**IF: 5.1**)
- IEEE/ACM Transactions on Computational Biology and Bioinformatics (**IF:4.5**)
- IEEE Access (**IF: 3.9**)
- IET Software (**IF: 1.6**)

Program Committee

- 1st International Conference “The Innovation Summit”, COMSATS University Islamabad, Vehari, **Pakistan**, 2021.
- Member of the Board of Advanced Studies & Research (BASAR), Institute of Southern Punjab, Multan, **Pakistan**, 2021.
- Member of Final Year Project Committee, COMSAT University Islamabad, Vehari Campus, **Pakistan**, 2021.
- 2nd International Conference on Advancements in Sciences & Research, COMSATS University Islamabad, Vehari, **Pakistan**, 2014.

Trainings and Conferences Attended

- 14th International Conference on ICT Convergence (ICTC), **Lotte Hotel**, Jeju Island, **South Korea**, 2023.
- 19th International Conference on Frontiers of Information Technology (FIT), **COMSATS University Islamabad**, Islamabad, **Pakistan**, 2022.
- Workshop on Skill Enhancement and Employee Development Program (SEED), **COMSATS University Islamabad**, Vehari, **Pakistan**, 2022.
- Outcome Based Education (OBE), **COMSATS University Islamabad**, Vehari, **Pakistan**, 2022.
- 18th International Conference on Frontiers of Information Technology (FIT), **COMSATS University Islamabad**, Islamabad, **Pakistan**, 2021.
- Symposium on Future Trends in Service-Oriented Computing, **Hasso Plattner Institute**, Berlin, **Germany**, 2015.
- International Conference of Data Mining and Knowledge Engineering, **World Congress on Engineering**, London, **United Kingdom**, 2012.
- Gaming Workshop, **University of Paris 8**, Paris, **France**, 2011.
- Post Graduate Training, **The University of Hull**, Hull, **United Kingdom**, 2011.

Work Experience

COMSATS University Islamabad, Vehari, Pakistan

Position: *Assistant Professor*

April 2022 – Present

Hanyang University, Seoul, South Korea

Position: *Research Assistant Professor*

April 2023 – Dec 2023

COMSATS University Islamabad, Vehari, Pakistan

Position: *Lecturer*

Sept 2013 – April 2022

Hasso Plattner Institute, Berlin, Germany

Position: *Research Internee*

June 2015 – Sept 2015

Creative Enterprise Laboratory, University of Hull, Scarborough, United Kingdom

Position: *Senior Developer*

Jan 2011 – April 2011

Beaconhouse National University, Lahore, Pakistan

Position: *Research Assistant / Web Developer*

April 2008 – Sept 2008

ECASoft, Karachi, Pakistan

Position: *.Net Developer*

Nov 2006 – Dec 2007

Education

Ph.D. in Computer Science, Sept. 2016 – July 2020

Beijing Institute of Technology, Beijing, China.

Thesis: Machine Learning Based Classification of Bug Reports

Master of Science in Computer Science (Research), Sept. 2009 – Feb. 2013

University of Hull, Hull, United Kingdom.

Thesis: Semi-automated Ontology Integration for Semantic Web

Master of Science in .Net Distributed Systems Development, Sept. 2008 – Aug. 2009

University of Hull, Hull, United Kingdom.

Thesis: An Automated Entity Relational Diagram (ERD) Generator

Bachelor of Science in Computer Science, Sept. 2002 – Aug 2006

The University of Punjab, Lahore, Pakistan.

Teaching

Theory of Automata, COMSATS University Islamabad, Vehari Campus, Graduate Students, Fall 2022 and Spring 2023.

Machine Learning, COMSATS University Islamabad, Vehari Campus, Graduate Students, Spring 2022.

Natural Language Processing, COMSATS University Islamabad, Vehari Campus, Graduate Students, Fall 2021.

Mobile Application Development, COMSATS University Islamabad, Vehari Campus, Undergraduate Students, Spring 2021.

Visual Programming, COMSATS University Islamabad, Vehari Campus, Undergraduate Students, Fall/Spring 2013, 2014, 2015, and 2020.

References

Letters of referral from the following people can be provided on request.

Dr. Choonhwa Lee

Professor
Department of Computer Science,
Hanyang University, Seoul, South Korea.
Email: lee@hanyang.ac.kr

Dr. Hui Liu

Professor
School of Computer Science and Technology,
Beijing Institute of Technology, Beijing, China.
Email: liuhui08@bit.edu.cn

Dr. Muhammad Faheem

Assistant Professor
School of Innovations & Technology, (VEBIC & Digital Eco.)
University of Vaasa, Vaasa, Finland.
Email: muhammad.fatheem@uwasa.fi
Phone: +358 50 57 21 872

Dr. Zohaib Latif

Assistant Professor
Department of Computer Science
School of Engineering and Digital Sciences (SEDS)
Nazarbayev University, Astana, Kazakhstan
Email: latif.zohaib@nu.edu.kz
Phone: +7-747-359-5478