





Dr. Asif Umer

Future-focused applied researcher driving innovation in IoT, Machine Learning, and Cloud & Fog Computing. Expert in intelligent task scheduling and resilient resource allocation. Committed to solving real-world system challenges and empowering the next generation of technologists.

Work Experience

 asifumer@hu.edu.pk

 Mansehra, Pakistan

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Languages


English : Professional

Urdu : Professional

Pashto: Professional

Social Media

 [LinkedIn](#)

 @Asifumer1990

1. Hazara University, Mansehra, Pakistan Lecturer CS and IT (BPS 18), Full Time Regular, 27/04/2017, Till date (Mansehra- Pakistan)

Key Responsibilities & Achievements:

- Delivered undergraduate and graduate-level courses in Computer Science, focusing on both theoretical foundations and practical applications.
- Supervised multiple student research projects, several of which resulted in **peer-reviewed publications** or conference presentations.
- Spearheaded departmental initiatives aimed at strengthening research culture, including mentoring junior faculty and organizing workshops/seminars.
- Contributed to curriculum development and academic planning in alignment with **HEC and university guidelines**.
- Served on various departmental committees, including **research review, academic audit, and student advising** panels.
- Introduced hands-on experiments in class, leading to high-impact student projects including a real-time HU Bus Tracking System, praised by the Governor of KP and Deputy Commissioner Mansehra at the MetricTech Summit.
- A short stint to serve computing related assignment at the provincial law enforcing regional headquarters.

2. COMSATS University Islamabad, Abbottabad, Pakistan Lecturer in Computer Science, Contract, 27/08/2016, to, 27/07/2017 (Abbottabad- Pakistan)

Key Responsibilities & Contributions:

- I taught graduate and undergraduate courses in Computer Science.
- Supervised multiple research projects, some leading to publications.
- Coordinated departmental projects to improve research initiatives.
- Began an academic career by teaching undergraduate and graduate-level courses in Computer Science, developing strong foundations in curriculum delivery and student engagement.
- Gained early experience in supervising **student thesis and project work**, guiding learners in areas such as software development, databases, and network systems.
- Assisted senior faculty in **coordinating academic and departmental tasks**, including organizing tutorials, preparing lab materials, and managing exam logistics.
- Participated in early-stage research activities and helped students formulate **research proposals**, some of which evolved into publishable studies.
- Developed professional competency in academic planning, course structuring, and classroom management while working in a collaborative academic environment.
- Arranged innovative Quiz and Gaming competitions to enhance the extra-curricular activities.

3. MAG & ASSOCIATES Software Ltd, Islamabad, Pakistan, Software Developer, Contract, 1/05/2013 to 2/04/2014

Key Responsibilities & Contributions:

- Web-based application development using JavaScript.
- Contributed to the design and development of **web-based applications**, with a primary focus on **JavaScript, HTML/CSS**, and dynamic UI components.
- Collaborated with cross-functional teams to implement client-side functionality, enhance user experience, and troubleshoot front-end performance issues.
- Participated in requirements gathering, sprint planning, and version control processes using tools such as **Git** and **Jira**.
- Developed reusable front-end components and contributed to the modular architecture of internal applications.

Education

Degree	Institution	CGPA/Marks	Year
PhD Computer Science	Hazara University, Mansehra, KPK, Pakistan	3.9/4	November, 2024
MS Computer Science	COMSATS Institute of Information Technology, Abbottabad Campus, Pakistan	3.46/4	August 2016
MCS (Master of Computer Science)	University of Science and Technology, Bannu, Pakistan	83%	July 2013
B.Sc (Computer Science)	University of Science and Technology, Bannu, Pakistan	60%	September, 2010
F.Sc (Pre-Engineering)	Govt High Secondary School Nadir Bodin Khel, Bannu	67%	April 2008
SSC (Science)	Govt High School Kotka Habibullah, Bannu	65%	April 2006

Publications

1- As First Author

S. No	Authors, Paper Title, Journal Name	Year
1.	Asif Umer , Ali, M. & Jehangiri, A.I. Fault tolerant and mobility-aware task offloading and scheduling model for IoT logistics. <i>Journal of Supercomputing</i> 81, 1203 (2025). https://doi.org/10.1007/s11227-025-07627-7 (Impact Factor 2.6, Q1)	2025
2.	Asif Umer , Mushtaq Ali, Ali Daud, Lal Hussain, Amal Bukhari, and Ali Imran Jehangiri. "Fault tolerant & priority basis task offloading and scheduling model for IoT logistics." <i>Alexandria Engineering Journal</i> 110 (2025): 400-419. https://doi.org/10.1016/j.aej.2024.10.018 (Impact Factor 6.2, Q1)	2025
3.	Asif Umer , Mushtaq Ali, Ali Imran Jehangiri, Muhammad Bilal, and Junaid Shuja. "Multi- Objective Task-Aware Offloading and Scheduling Framework for Internet of Things Logistics" <i>Sensors</i> 24 (2024), no. 8: 2381. https://doi.org/10.3390/s24082381 (Impact Factor 3.8, Q1)	2024
4.	Asif Umer , Babar Nazir, & Zulfiqar Ahmad. Adaptive market-oriented combinatorial double auction resource allocation model in cloud computing. <i>The Journal of Supercomputing</i> (2021). https://doi.org/10.1007/s11227-021-03918-x (Impact Factor 2.6, Q1)	2021

2- As Co-author

S. No	Authors, Paper Title, Journal Name	Year
5.	Adnan, Muhammad, Jawaid Iqbal, Abdul Waheed, Noor Ul Amin, Mahdi Zareei, Shidrokh Goudarzi, and Asif Umer. "On the Design of Efficient Hierarchic Architecture for Software Defined Vehicular Networks." <i>Sensors</i> 21, no. 4 (2021): 1400. https://doi.org/10.3390/s21041400 (Impact Factor 3.8, Q1)	Published 2021
6.	Ahmad, Zulfiqar, Babar Nazir, and Asif Umer. "A fault-tolerant workflow management system with Quality-of-Service-aware scheduling for scientific workflows in cloud computing." <i>International Journal of Communication Systems</i> 34, no. 1 (2021): e4649. https://doi.org/10.3390/s21113902 (Impact Factor 2.2, Q2)	Published 2021
7.	Adnan, Muhammad; Iqbal, Jawaid; Waheed, Abdul; Amin, Noor U.; Zareei, Mahdi; Umer, Asif; Mohamed, Ehab M. 2021. "Towards the Design of Efficient and Secure Architecture for Software-Defined Vehicular Networks" <i>Sensors</i> 21, no. 11: 3902. https://doi.org/10.3390/s21113902 (Impact Factor 3.8, Q1)	Published 2021
8.	Ullah, Zakir, Asif Umer, Mahdi Zaree, Jamil Ahmad, Faisal Alanazi, Noor Ul Amin, Arif Iqbal Umar, Ali Imran Jehangiri, and Muhammad Adnan. (2021). Negotiation Based Combinatorial Double Auction Mechanism in Cloud Computing. <i>CMC-Computers, Materials & Continua</i> , 69(2), 2123–2140. https://doi.org/10.32604/cmc.2021.015445 (Impact Factor 2.9, Q2)	Published 2021
9.	Syed, Sidra A., Munaf Rashid, Samreen Hussain, Fahad Azim, Hira Zahid, Asif Umer, Abdul Waheed, Mahdi Zareei, and Cesar Vargas-Rosales. 2022. "QoS Aware and Fault Tolerance Based Software-Defined Vehicular Networks Using Cloud-Fog Computing" <i>Sensors</i> 22, no. 1: 401. https://doi.org/10.3390/s22010401 (Impact Factor 3.8, Q1)	Published 2022
10.	Muhammad Khan, Ali Imran Jehangiri, Zulfiqar Ahmad, Mohammed Alaa Ala'anzy, Asif Umer "An exploration to graphics processing unit spot price prediction." <i>Cluster Computing</i> -3499-3515-2022 https://doi.org/10.1007/s10586-022-03581-8 (Impact Factor 3.5, Q1)	Published 2022
11.	Hira Zahid, Sidra Abid Syed, Munaf Rashid, Samreen Hussain, Asif Umer, Abdul Waheed, Shahzad Nasim, Mahdi Zareei, Nafees Mansoor "A Computer Vision-Based System for Recognition and Classification of Urdu Sign Language Dataset for Differently Abled People Using Artificial Intelligence" <i>Mobile Information Systems</i> -2023 https://doi.org/10.1155/2023/1060135 (Impact Factor 1.01, Q3)	Published 2023
12.	Ahmad, Imtiaz, Muhammad Adnan, Noor ul Amin, Asif Umer, Adnan Khurshid, Khursheed Aurangzeb, and Muhammad Gulistan. "Adaptive and Priority-Based Data Aggregation and Scheduling Model for Wireless Sensor Network." <i>Knowledge-Based Systems</i> 303 (2024): 112393. https://doi.org/10.1016/j.knosys.2024.112393 (Impact Factor 7.2, Q1)	Published 2024
13.	Noor, Allah, Asif Umer, A. I. Umar, Zulfiqar Ahmad, and Mohsin Khan. "Usability evaluation of brain-computer interaction (BCI), based game for normal users." <i>Int. J. Comput. Sci. Netw. Secur</i> 18, no. 6 (2018): 168-175.	2018

Technical Skills

Programming Languages	Java, C++, JavaScript, PHP
Technical Tools	Eclipse, Latex, MATLAB, Dev++, Dream viewer and Netbean
Databases	SQL Server, MS Access 2013, Oracle, and MySQL Workbench
Operating systems	MS Windows, Linux
Software Packages	MS-Office 2013, Adobe photoshoot, Latex, WampServer, Workday
Platforms	Workday
Simulation Tools	CloudSim, iFogSim2, OMNeT++

Research Interests

- Internet of Things (IoT)
- Cloud & Fog Computing
- Task Scheduling & Optimization
- Fault Tolerance in Distributed Systems
- AI & Machine Learning Applications in IoT
- Wireless Sensor Networks

Honors, Certifications & Professional Activities

- **Organizer**, FIT-14 & FIT-15 — *International Conference on Frontiers of Information Technology* (Islamabad)
- **Supervised student team** in developing a website for a regional law enforcement agency — *Awarded Certificate of Commendation*
- **Trainer**, one-day workshop on *Digital Media Marketing*
- **Certificate of Participation**, *Tech Valley Conference 2019*
- **Certificate of Appreciation**, for organizing the *University Cluster Conference on Climate Change Education in Pakistan*
- **Certificate of Appreciation**, for conducting *Two-day Training of Presiding Officers & Senior Assistant Presiding Officers — General Elections 2018, Pakistan*
- **Approved HEC Scholar**, Higher Education Commission, Pakistan

Teaching Activity

Over multiple semesters, I have taught a wide range of **undergraduate and graduate courses** in **Computer Science** and **Software Engineering**, combining core theoretical instruction with practical, project-based learning. My teaching has emphasized **problem-solving, industry relevance, and student-centered delivery**.

Course(s)	Level
Programming Fundamentals (C), OOP (C++ & Java), Modern Programming Languages	Undergraduate
Data Structures & Algorithms	Undergraduate
Discrete Mathematics & Structures	Postgraduate
Database Systems	Postgraduate
Software Engineering & Project Management	Postgraduate
Cloud Computing	Postgraduate
Internet of Things (IoT)	Postgraduate

References

To be provided upon request.