



# Curriculum Vitae

*Dr. Asif Umer*



## PROFILE

**"Dedicated researcher in IoT, Cloud, ML, and Fog Computing with expertise in task scheduling, fault tolerance, and resource allocation; passionate about innovation and mentoring in advanced computing."**

- asifumer@hu.edu.pk
- Mansehra, Pakistan
- +92-3429314692

## LANGUAGES

- English : Professional
- Urdu : Professional
- Pashto: Professional

## SOCIAL MEDIA

- <https://www.linkedin.com/in/asifumer1990>
- @Asifumer1990

## WORK EXPERIENCE

28/12/2021 Till date (Mansehra-Pakistan)	<b>1. Hazara University, Mansehra, Pakistan</b> Lecturer CS and IT (BPS-18), Full Time Regular <b>Tasks:</b> <ul style="list-style-type: none"> <li>• Taught graduate and undergraduate courses in Computer Science.</li> <li>• Supervised multiple research projects, some leading to publications.</li> <li>• Coordinated departmental projects to improve research initiatives.</li> </ul>
01/05/2020 27/12/2021 (Peshawar-Pakistan)	<b>2. KPK Police</b> Computer Operator (BPS-16), Full Time Regular <b>Tasks:</b> <ul style="list-style-type: none"> <li>• Managing and writing up the office letters</li> <li>• Manage the central database</li> <li>• Preparing and giving presentations</li> </ul>
27/04/2017 26/04/2020 (Mansehra-Pakistan)	<b>3. Hazara University, Mansehra, Pakistan</b> Lecturer in Computer Science and IT, Contract <b>Tasks:</b> <ul style="list-style-type: none"> <li>• Taught graduate and undergraduate courses in Computer Science.</li> <li>• Supervised multiple research projects, some leading to publications.</li> <li>• Coordinated departmental projects to improve research initiatives.</li> </ul>
27/08/2016 27/07/2017 (Abbottabad-Pakistan)	<b>4. COMSATS University Islamabad, Abbottabad, Pakistan</b> Lecturer in Computer Science, Contract <b>Tasks:</b> <ul style="list-style-type: none"> <li>• Taught graduate and undergraduate courses in Computer Science.</li> <li>• Supervised multiple research projects, some leading to publications.</li> <li>• Coordinated departmental projects to improve research initiatives.</li> </ul>
1/05/2013 2/04/2014 (Islamabad-Pakistan)	<b>5. MAG &amp; ASSOCIATES Islamabad, Pakistan</b> Junior Developer, Contract <b>Tasks:</b> <ul style="list-style-type: none"> <li>• Web-based application development using JavaScript.</li> </ul>

## 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-> PUBLICATION LIST AS FIRST AUTHOR

S. No	Authors, Paper Title, Journal Name	Year
1	<b>Asif Umer</b> , 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. <a href="https://doi.org/10.1016/j.aej.2024.10.018">https://doi.org/10.1016/j.aej.2024.10.018</a> (Impact Factor 6.2, Q1)	2025
2	<b>Asif Umer</b> , 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. <a href="https://doi.org/10.3390/s24082381">https://doi.org/10.3390/s24082381</a> (Impact Factor 3.8, Q1)	2024
3	<b>Asif Umer</b> , Babar Nazir, & Zulfiqar Ahmad. Adaptive market-oriented combinatorial double auction resource allocation model in cloud computing. <i>The Journal of Supercomputing</i> (2021). <a href="https://doi.org/10.1007/s11227-021-03918-x">https://doi.org/10.1007/s11227-021-03918-x</a> (Impact Factor 2.1, Q2)	2021

### 2-> PUBLICATION LIST AS CO-AUTHOR

S. No	Authors, Paper Title, Journal Name	Year
4	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. <a href="https://doi.org/10.3390/s21041400">https://doi.org/10.3390/s21041400</a> (Impact Factor 3.8, Q1)	Published 2021
5	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. <a href="https://doi.org/10.3390/s21113902">https://doi.org/10.3390/s21113902</a> (Impact Factor 2.2, Q2)	Published 2021
6	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. <a href="https://doi.org/10.3390/s21113902">https://doi.org/10.3390/s21113902</a> (Impact Factor 3.8, Q1)	Published 2021
7	Ullah, Zakir, Asif Umer, Mahdi Zareei, 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 &amp; Continua</i> , 69(2), 2123–2140. <a href="https://doi.org/10.32604/cmc.2021.015445">https://doi.org/10.32604/cmc.2021.015445</a> (Impact Factor 2.9, Q2)	Published 2021
8	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. <a href="https://doi.org/10.3390/s22010401">https://doi.org/10.3390/s22010401</a> (Impact Factor 3.8, Q1)	Published 2022

<b>9</b>	Muhammad Khan, Ali Imran Jehangiri, Zulfiqar Ahmad, Mohammed Alaa Ala'anyz, Asif Umer "An exploration to graphics processing unit spot price prediction." <i>Cluster Computing</i> -3499-3515-2022 <a href="https://doi.org/10.1007/s10586-022-03581-8">https://doi.org/10.1007/s10586-022-03581-8</a> (Imact Factor 3.5, Q1)	<b>Published 2022</b>
<b>10</b>	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 <a href="https://doi.org/10.1155/2023/1060135">https://doi.org/10.1155/2023/1060135</a> (Imact Factor 1.01, Q3)	<b>Published 2023</b>
<b>11</b>	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. <a href="https://doi.org/10.1016/j.knosys.2024.112393">https://doi.org/10.1016/j.knosys.2024.112393</a> (Imact Factor 7.2, Q1)	<b>Published 2024</b>

## TECHNICAL SKILLS

S. No	Skill Category	Skill Name
<b>1</b>	<b>Programming Languages</b>	Java, C++, JavaScript, PHP
<b>2</b>	<b>Technical Tools</b>	Eclipse, Latex, MATLAB, Dev++, Dream viewer and Netbean
<b>3</b>	<b>Databases</b>	SQL Server, MS Access 2013, Oracle, and MySQL Workbench
<b>4</b>	<b>Operating systems</b>	Windows XP / Windows 7,8 and 10
<b>5</b>	<b>Software Packages</b>	MS-Office 2013, Adobe photoshoot, Latex, WampServer, Workday
<b>6</b>	<b>Simulation Tools</b>	CloudSim, iFogSim2, OMNeT++

## RESEARCH INTEREST

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

## PROFESSIONAL MEMBERSHIPS & ACHIEVEMENTS

- Organizer of FIT-14 & FIT-15 (International Conference on Frontiers of Information Technology).
- Supervised students in developing the Manshera Police website for KPK Police, District Manshera (received Commendation Certificate).
- One-day training in digital media marketing.
- Certificate of ParticipationTech valley conference 2019
- Certification of Appreciation For organizing the university cluster conference on climate change education in Pakistan
- Certification of Appreciation Two day's training of presiding officers & seniors assistant presiding officers generals election 2018 Pakistan
- HEC Scholar

## OVERVIEW OF COURSES TAUGHT

Throughout multiple semesters, I have taught a diverse range of courses in Computer Science and Software Engineering, focusing on fundamental and advanced concepts in programming, data structures, algorithms, databases, and discrete mathematics.

- **Core Programming Courses:** Covered Programming Fundamentals C language, Object-Oriented Programming (OOP) (C++ & Java), and Modern Programming Languages, equipping students with essential coding skills in Java, C++, and scripting languages.
- **Data Structures & Algorithms:** Delivered courses on Data Structures and Algorithms, emphasizing efficient data manipulation, searching, sorting, and algorithmic problem-solving.
- **Mathematical Foundations:** Taught Discrete Mathematics and Discrete Structures, providing students with a strong theoretical background in logic, sets, graphs, and combinatorial techniques.
- **Database Systems:** Conducted Introduction to Database Systems, covering SQL, relational databases, and normalization for efficient data management.
- **Software Engineering & Project Management:** Introduced students to Software Project Management, focusing on SDLC, Agile methodologies, and risk management in real-world software development.
- **Cloud Computing:** Basics of cloud computing, distributed computing and their applications.
- **Internet of Things (IoT):** IoT architecture, devices, arduino programming.

My teaching approach blended theoretical knowledge with hands-on practical applications, ensuring students developed problem-solving abilities and industry-relevant technical expertise

## REFERENCES

<b>Dr. Javed Ali Khan,</b> Senior Lecturer, Computer Science, University of Hertfordshire, The United Kingdom. Email: <a href="mailto:j.a.khan@herts.ac.uk">j.a.khan@herts.ac.uk</a>	<b>Dr. Zulfiqar Ahmad</b> Department of CS & IT, Hazara University, Mansehra, KPK, Pakistan. Email: <a href="mailto:zulfiqarahmad@hu.edu.pk">zulfiqarahmad@hu.edu.pk</a>
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