RIDA SARA KHAN

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SUMMARY

A self-driven professional with experience spanning both industry and academia in software engineering, specializing in Software Quality Assurance. Passionate about technology, with meticulous attention to detail and a strong problem-solving orientation. Actively engaged in continuous improvement efforts within the organizations I work in, with a focus on understanding how software engineers use the tools of the trade to work more efficiently.

FIELDS OF INTEREST

- Software Engineering
- Data Sciences
- Artificial Intelligence
- Human-Computer Interaction (HCI)

EDUCATION

Master's in Industry 4.0 (2021 – 2022)
University of Pau and Pays de l'Adour (UPPA), France

Bachelor's in Software Engineering (2013 – 2016)
University of Sindh, Pakistan

PROFESSIONAL EXPERIENCE

Computer Science Lecturer | January 2024 – August 2025
Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST)

- Deliver undergraduate Computer Science coursework, including Artificial Intelligence, Data Science, and Software Engineering topics.

Visiting Faculty, BS(IT) & BS(SWE) | December 2023 – Present
College of Modern Science and Technology

- Teach undergraduate IT and Software Engineering courses on a visiting basis.

Visiting Faculty, BS(IT) & BS(SWE) | December 2023 – Present
Management Institute of Technology Software Solution

- Teach undergraduate IT and Software Engineering courses on a visiting basis.

Ontologist / Taxonomist | March 10, 2022 – September 10, 2022
École Nationale d'Ingénieurs de Tarbes (ENIT), France

- Worked within the National Polytechnic Institute of Toulouse (INPT) network on ontology and taxonomy design as part of Master's research placement.

Co-Instructor, Software Quality & Assurance | 2017 – 2018
University of Sindh, Jamshoro, Pakistan — BS(IT) & BS(SWE) Courses

- Co-authored the Software Quality Assurance Lab Manual.

SQA Intern | July 1, 2017 – July 2018
Institute of Information and Communication Technologies (IICT), University of Sindh

- Supported Software Quality Assurance activities within the institute.

SQA Engineer | August 21, 2015 – November 2015
RentVm

- Conducted software quality assurance testing for company products.

MASTER RESEARCH THESIS

Title: *Research and Development of the Aligned Domain Knowledge Graph*

Abstract

Taxonomies and classification schemes are widely used to organize and classify information, facilitating retrieval tasks such as indexing, cataloguing, and searching of digital documents. This research develops a subject taxonomy of academic disciplines, domains, and topics, classifying subjects and identifying connections between related labels and descriptive terms so that students can more easily locate their area of interest. The work establishes a hierarchical classification system — broader terms at the top and narrower terms beneath — with clear, unambiguous definitions using controlled vocabulary. To support this, a subject browser search engine was built for students, based on an inferred taxonomy that represents the conceptual framework of academic domains and the relationships that link them.

PUBLICATIONS

1. Comparative Analysis of Threat Intelligence Sharing Platforms in Cyber Attack Prediction and Prevention
M. Ali, F. Ahmed, K. Dahri, R.S. Khan, M.Y. Koondhar — Spectrum of Engineering Sciences, 4(3), 1056–1064, 2026

2. A Data-Driven Framework for Multidimensional Urban Mobility (MUM)
F. Ahmed, K. Dahri, R.S. Khan, M.Y. Koondhar, R.H. Ngouna — Spectrum of Engineering Sciences, 4(3), 1075–1086, 2026

3. Threat Intelligence for Cyber Attack Prediction
M. Ali, F. Ahmed, K. Dahri, R.S. Khan, Y. Koondhar — Spectrum of Engineering Sciences, 4(3), 1065–1074

4. Design and Implementation of an Aligned Domain Knowledge Graph for Academic Taxonomies
R. Sara, F.A. Abbasi, S. Ali, K. Dahri, M.A. Memon, M.A. Nizamani — Sukkur IBA Journal of Computing and Mathematical Sciences, 9(01), 26–45

5. Artificial Intelligence Based Smart Doctor Using Decision Tree Algorithm
R.S. Khan, A. Zardari, Z. Bhatti (2016)

6. The Role of Artificial Intelligence in Predicting Financial Crises: A Machine Learning Approach
Rida Sara Khan, Muhammad Ishaq, Faheem Ahmed — Spectrum of Engineering Sciences, 4(4), 800–807

7. Requirement Engineering Challenges in Distributed Software Development
F.A. Abbasi, A. Burdi, R.S. Khan, S.H.F. Naqvi, M.S. Abbasi, A.R. Nizamani — Sindh University Research Journal (Science Series), 51(03), 465–468, 2019

TEACHING COURSES (UNDERGRADUATE)

- Artificial Intelligence
- Data Science
- Machine Learning
- Software Engineering
- HCI
- User Interface Design
- Software Requirement Engineering
- Software Quality Assurance
- Software Testing and Development

TECHNICAL SKILLS

Programming Languages: C, C++, Java, HTML, C#
Agile Tools: Scrum
Terminology Management: Protégé
System Design: UML (Unified Modeling Language)
Version Control: Team Foundation Version Control (TFVC), Microsoft Visual SourceSafe (VSS)
IDEs: Visual Studio, Eclipse
CI Tools: TFS-2015, TeamCity
Build Tools: MS Build, Maven, Makefile
Code Quality Tools: SonarQube, NDepend
Functional Testing Tools: Selenium WebDriver, Quick Test Professional (QTP), Test Complete
Bug Tracking Tools: Microsoft Team Foundation Server, PVCS Bug Tracker
Test Management Tools: Microsoft Test Manager (MTM), Pass Mark Test Log
Performance Testing Tools: WAPT, FxCop, JetBrains dotTrace, Visual Studio Code Analyzer

EXTRA-CURRICULAR ACTIVITIES

- 6 years as a cricket player (All-Rounder, Left-Arm Spinner) registered with the Pakistan Cricket Board.

COUNTRIES VISITED

- France (2019 – 2022)

REFERENCES

Muhammad Ali Memon
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