

**Profile** An experienced educator with a demonstrated history of working in the education sector at university level. I am skilled in independent research activities, delivering tutorials at undergraduate and postgraduate levels.

**RESEARCH INTERESTS** Requirements Engineering (RE), Machine Learning (ML) and Natural Language Processing (NLP).

**EDUCATION** **International Islamic University Islamabad, Pakistan** **Sep 2019 - 2024**

**PhD** in Software Engineering

- **Thesis:** Identification and classification of non-functional software requirements using transfer learning.
- **Project Description:** This PhD work is related to classification problem of non-function requirements based on Transfer Learning (TL). The requirement classification means associating each requirement to a respective set of labeled classes. These labels provide semantic information about the requirements. Requirement classification helps to handle a huge number of requirements and supports the mapping of requirements to specific software components. It will support the reviewers to find out dependency and inconsistency defects, focus communication, and prioritization of requirements. The benefit of NFR classification is defect reduction, early discovery of the error, and a decrease in cost. The proposed solution will support different stakeholders such as architects, business analysts, and software developers to select their respective important requirements (such as performance, efficiency, security, availability and usability, user interface, etc) more accurately, efficiently, with fewer efforts, time and without error.
- **Current Status:** *Coursework completed and topic of research has been approved*
- **Advisor:** Dr Anwar Ghani, Dr Arif Ur Rahman
- **Courses taken (major):** *Special Topics in Software Engineering, Data Analytics, Research Trends in Software Engineering, Empirical Research Methods in Software Engineering, Topics in Information System, Topics in Continuous Integrations & DevOps, Special topics in Software Engineering.*

**International Islamic University Islamabad, Pakistan** **Mar 2008 - Sep 2012**

Master of Science in Software Engineering

- **Thesis:** Generating Alloy Specification: From Textual User Requirements Written in Natural Language.
- **Courses taken (major):** *Software Requirements Engineering, Software System Design and Architecture, Software Process Engineering, Model Driven Software Development, Software Quality Engineering, Software Project Management, Model Based Software Testing.*

**University of Malakand, Pakistan** **Sep 2002 - Feb 2007**

Bachelor of Science (Hons) in Information Technology

- **Courses taken (major):** *Operating System, Programming Language(C++), Calculus, Linear Algebra, Discrete Mathematics, Software Engineering-I, Software Engineering-II, Statistics and Probability, Database-I, Database-II, Software Project Management. Web Programming*

**PUBLICATIONS**

- **Kiramat Rahman**, Shahbaz Ahmed Khan Ghayure "Generating Alloy Specification: From Textual User Requirements Written in Natural Language" Publisher LAP Lambert Academic Publishing, 2012 ISBN 3659233218, 9783659233210.
- **Kiramat Rahman** / Ghani, Anwar / Misra, Sanjay / Rahman, Arif A deep learning framework for non-functional requirement classification 2024-02 Scientific Reports, Vol. 14, No. 1 Springer Science and Business Media LLC

- **Kirammat Rahman** Ghani, Anwar Alzahrani, Abdulrahman Tariq, Muhammad Usman Rahman, Arif Ur. (2023). Pre-Trained Model-Based NFR Classification: Overcoming Limited Data Challenges. IEEE Access. 11. 81787-81802. 10.1109/ACCESS.2023.3301725.
- **Kirammat Rahman** A. Ghani, R. Ahmad and S. H. Sajjad, "Hybrid Deep Learning Approach for Nonfunctional Software Requirements Classifications," 2023 International Conference on Communication, Computing and Digital Systems (C-CODE), Islamabad, Pakistan, 2023, pp. 1-5, doi: 10.1109/C-CODE58145.2023.10139907.

PROFESSIONAL  
EXPERIENCE

**University of Swat, Pakistan**

**Oct 2018 - Sep 2019**

Assistant Professor

Responsibilities:

- Assisting with various departmental duties and providing academic support to Professors and other staff.
- Recruiting, training, and mentoring new TAs and other junior staff.
- Conducting research and publishing papers in academic journals.
- Representing the university at conferences and delivering presentations when necessary.
- Teaching and supervising undergraduate and graduate students.
- Providing demonstrations and supervising experiments and investigations.
- Establishing collaborative links outside the university with industrial, commercial and public organizations.
- Prepare, administer and grade examinations, laboratory assignments and reports
- Supporting students through a pastoral or advisory role.

Modules delivered, supported and assessed:

- Advanced Software Requirements Engineering
- Advanced Software Quality Engineering

**University of Swat, Pakistan**

**Oct 2012 - Oct 2018**

Lecturer in Software Engineering

Responsibilities:

- Teach courses to undergraduate (UG) students
- Prepare and deliver lectures to students and conduct laboratory sessions or discussion groups
- Supervising students' research activities;
- Prepare, administer and grade examinations, laboratory assignments, and reports
- Advise students on the course and academic matters and career decisions
- Direct research programs of graduate students and advise on research matters
- Supporting students through a pastoral or advisory role

Modules delivered, supported and assessed:

- Software Construction
- Software Project Management
- Introduction to software development
- Software Engineering-I
- Software Engineering-II
- Software Verification and Validation

**Kamaore Development Welfare Organization, Pakistan**

**Jan 2012 - Oct 2012**

Project Coordinator

Responsibilities:

- leading and supervising the implementation and monitoring of the project
- Sharing relevant documentation and reports with project teams
- Providing information and regular support to stakeholders
- Being point of contact for various working groups

**United Nations World Food Program, Pakistan**

**Sep 2010 - Dec 2011**

ICT Assistant

Responsibilities:

- Receive, configure, test, install and maintain standard systems such as servers, computers, and telecommunication hardware and software.
- Abide by WFP standards, IT security, and other policies while installing and updating systems, taking backups of servers, managing datacenter, and Disaster Recovery site;
- Administer user access to systems, maintenance of systems and equipment by carrying out routine tasks, such as monitoring centralized systems as well as peripherals, running systems diagnostics, patch management and system optimization, removing viruses and bad data, etc.
- Assist in training and support of users of technology and systems such as meetings, databases, audio/video conferences, trainings, workshops, networks, etc.

**Kamaore Development Welfare Organization, Pakistan**

**Jul 2007 - Sep 2010**

IT officer

Responsibilities:

- Establish and maintenance of LAN infrastructure in the main and field offices.
- Development and maintenance of WEB Site.

GRANTS AND FELLOWSHIPS

- Winner of HEC scholarship award For Ph.D. studies 2019 - 2023.

TECHNICAL SKILLS

- Python, NLP, Keras/Tensorflow, Matplotlib, Seaborn, Sklearn, Pandas, Numpy, Spacy
- Anaconda Navigator (Jupyter)
- Colab
- LaTeX
- SPSS

TRAINING AND WORKSHOPS

- Participated in the cascading workshop on “Teaching Effectiveness” held at University of Swat, 13 - 18 October 2014.
- Participation in the focus group discussion on “Electoral Reforms in Pakistan” held at University of Swat, March 31 2014.
- Participation in Seminar on “Peace” held at University of Swat, June 17 - 18, 2013.
- Five days training on “Administering & Configuring Microsoft SharePoint 2010” with Expert System Academy, Lahore, 19 - 24 December 2011.
- Two days training on COBIT, “a standard IT framework with Business Beam”, Lahore, 15 - 16 December 2011.
- Three days training on “ITIL a standard framework with Business Beam”, Lahore, 12 - 14 December 2011.
- Training workshop on Competing in the Local Job Market” with Ark Consulting Group, Peshawar 26 July 2011.
- Three Days training on “Safe and Secure Approach” by United Nation College of Security in the field, 20 - 23 April 2011.
- Workshop on “Effective Communication & Presentation Skills”, held at NRSP-Institute of Rural Management, Islamabad, March 15-19 2010.
- Orientation training on “Participatory Development” held at NRSP-Institute of Rural Management, Islamabad, March 11- May 10, 2009.
- “Management and Development” training with NRSP-Institute of Rural Management under FATA-CBP at Islamabad, 18 - 30 Aug 2008.

**Additional  
Responsibilities**

- Focal Person of the Online Seminar on “Semantic Web” held at the Department of Computer and Software Technology University of Swat (January 2013)
- Chief Organizer of Workshop on “Web Engineering and Development” held at Department of Computer and Software Technology.(December 2012)
- Member of Departmental Scholarships Committee
- Member of Visiting Faculty Selection Committee
- Social Work Coordinator Department of Computer and Software Technology.
- Member of Departmental Semester Exam Committee.
- Member of Admission committee.
- Have Successfully Developed Website for KDWO a National Level Social Organization.
- Have successfully completed account information system for collage as final degree thesis Using Oracle and SQL as Tool.
- Have successfully developed a website for DEWAH a local social organization.
- Installation and configuration of VSAT and LAN in UN- WFP Shangla office.

**LINGUISTIC  
SKILLS**

- English
- Pashto
- Urdu