

Esha Aftab

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Education

Qualification		Institute Name	CGPA/Division
PhD	Fall 2020	Punjab University College of Information Technology	In progress...
M.Sc (Computer Science)	2010-12	Lahore University of Management Sciences (LUMS), Lahore	3.66 <small>(out of 4.0)</small>
B.Sc. (Computer Science)	2005-09	National University of Computer & Emerging Sciences (NU-FAST), Lahore	3.74 <small>(out of 4.0)</small>

Work Experience

Position/Title	Job Description
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Punjab University College of Information Technology (PUCIT)

Job Title: Assistant Professor	2019-current	Conduct programming and technical courses: Subjects of interest: Data Structures, Algorithms, Machine Learning, Deep Learning, Natural Language Processing (NLP) , Large Language Models (LLMs)
Job Title: Lecturer	2012-2019	

NUCES-FAST

Job Title: Visiting faculty	2012	Conducted 'Applied Programming' Course for MSc
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Techlogix Pvt. Limited

Job Title: Software Engineer	2009-10	Ufone Enterprise Application Integration (EAI) <ul style="list-style-type: none">Design and development of automated set of key business processes for IBM WebSphere Integration Developer, a Java based integration environment Motorola Business Process Management (BPM) <ul style="list-style-type: none">Design and development of automated business processes to enhance Motorola Products' qualification and analysis using Savvion BPM Software Nestle Milk Balancing System (MBS) <ul style="list-style-type: none">MBS required devising an algorithm to pre-plan maximum milk consumption in various dairy products for Nestle Pvt. LimitedImplemented complex report generation module. Automated reports were compiled, showing production plan and improvement factors on running MBS algorithm for specific input set.Development Tools: Microsoft Visual Studio 2008, Silverlight, Telerik Toolkit and .Net Framework
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Teaching Experience:

Undergraduate Courses

Introduction to Computing,
Object Oriented Programming (C++),
Data Structures and Algorithms,
Database Systems,
Digital Logic Design,
Design and Analysis of Algorithms

Technical Proficiencies

Technologies & Languages	Python, Pytorch, TensorFlow, Python-based Libraries and Frameworks, C++, C#, ASP, .NET Framework, PRISM Framework, MATLAB, MS SQL Server 2005, Oracle, Java, Javascript, Java ME, OpenGL
Development Environments	Linux (Ubuntu), MS Visual Studio(2008/2010), Netbeans IDE, Eclipse, Savvion BPM Software, IBM Websphere Toolkit

Major Projects

- **Computer Vision Research Project:** Shape and color based Jigsaw Puzzle Solver. Shape based jigsaw piece identification gave successful results 80-85% of the times. Implementation of piece placement algorithm to complete the puzzle employing image stitching techniques
- **Image Annotation:** A research based project to label images according to their content using statistical methods.

Academic Achievements

- **Silver Medalist: 2nd position in BCS (FAST)**
- **Dean's List Honor Certificate (FAST)**

Interests & Activities

- Sketching, Painting and Reading

Publications

1. Aftab, Esha, and Muhammad Kamran Malik. "Weight Averaging and re-adjustment ensemble for QRCD." *Journal of King Saud University-Computer and Information Sciences* 36.4 (2024): 102037.
2. Aftab, Esha, and Muhammad Kamran Malik. "erock at qur'an qa 2022: Contemporary deep neural networks for qur'an based reading comprehension question answers." *Proceedings of the 5th Workshop on Open-Source Arabic Corpora and Processing Tools with Shared Tasks on Qur'an QA and Fine-Grained Hate Speech Detection. 2022.*
3. Aftab, Esha, et al. "Impact of COVID-19 on Online Retail in Pakistan." *2022 International Conference on Emerging Trends in Smart Technologies (ICETST). IEEE, 2022.*