



Sara MUMTAZ

Home Country: Pakistan

Degree: PhD in Computer Science

Expertise: Databases, Information Systems, Machine Learning

Research Focus: Computational Analysis of Breast Cancer Data

Host University: University of New South Wales, Australia

Fellowship Awarded: 2015

Sara Mumtaz was born and raised in Peshawar, Khyber Pakhtunkhwa (KPK) province, in northwest Pakistan. Unfortunately many people in the region consider the education of women unimportant, and many are particularly discouraged from pursuing higher studies. Her own parents had a different view and supported Sara to pursue her academic career, and today she is a lecturer in KPK's first women's university.

After graduating from the Lady Griffith Government Girls High School in Peshawar in 2000, Sara was admitted to the City College for Women for a pre-engineering course. Despite opposition from some relatives she then studied towards a BSc in Software Engineering, graduating in 2006 with a gold medal for her academic performance. Sara taught at the Army Public School and College, Peshawar, until 2010 when she joined the University of Peshawar to study towards an MSc in Computer Science, specializing in databases and information systems.

Sara is using her knowledge of computational science to conduct research into breast cancer, which has a number of potential risk factors ranging from genetics to exposure to harmful chemicals. The impact of these factors is not well understood, and existing treatments have a limited effect. Sara believes that detailed analysis of existing and new data may help to establish new treatment methods and personalize treatment strategies to better treat breast cancer. Pakistan has among the highest rates of deaths due to cancer, and issues including social and ethical hurdles prevent many women in the country from seeking treatment. Sara hopes to help raise awareness of breast cancer in the country and help it to be diagnosed and treated at earlier stages.

After completion of her PhD studies in Australia, Sara plans to teach at the Shaheed Benazir Bhutto Women University in Peshawar. She also hopes to establish a state-of-the-art research laboratory and initiate new MSc and PhD programs.