Contact

Lero
Tierney Building
University of Limerick
Limerick, Ireland
+353 83 3566711 (Mobile)
msarmadali@gmail.com

www.linkedin.com/in/muhammad-sarmad-ali (LinkedIn)

Top Skills

Evolutionary Algorithms
Machine Learning
Software Engineering

Languages

English (Professional Working)
Urdu, Punjabi (Native or Bilingual)

Publications

Dynamic Grammar Pruning for Program Size Reduction in Symbolic Regression

Automated grammar-based feature selection in symbolic regression

Muhammad Sarmad Ali

Machine Learning Researcher | Lecturer | Data Scientist
Limerick, County Limerick, Ireland

Summary

I am a researcher with expertise in the area of machine learning, more specifically, evolutionary algorithms. I have worked extensively on regression problems. My interest lies in exploring innovative approaches to exploit analytics, heuristics, and interpretable machine learning in solving problems at scale.
I have a diverse academic background and professional experience. I highly value learning and aspire to work in environments that cherish learning.

Experience

University of Limerick
Postdoctoral Researcher
January 2023 - Present (1 year 8 months)
Limerick, County Limerick, Ireland

My current research focuses on improving software performance through refactoring and compiler optimization utilizing machine learning and evolutionary computing. Previously, I have worked on early breast cancer detection using an ensemble of traditional machine learning, deep learning, and evolutionary computing approaches.

Dundalk Institute of Technology
Assistant Lecturer
September 2023 - January 2024 (5 months)
Dundalk, County Louth, Ireland

Delivering computer science modules at the Dept. of Computing Science and Mathematics

SureSkills
Technical Content Developer / Subject Matter Expert
August 2022 - December 2022 (5 months)
Dublin, Ireland

I worked as a curriculum developer and SME in the e-learning company, developing and reviewing content for a course which became part of the Meta

Android Developer Professional Certificate. The project focused on Android user interface development using Jetpack Compose toolkit.

University of Limerick
Program Coordinator
July 2019 - March 2022 (2 years 9 months)
Limerick, County Limerick, Ireland

Worked in coordination with Student Engagement and Success Unit, Student Affairs division, and the Course Director at Dept. of Computer Science & Information Systems at UL to carry out a Student Leadership Initiative (titled 'Making the Leap'). The program aimed at helping newly admitted 1st year students in CS by connecting them to their senior peers in order to assist in their transition from 2nd to 3rd-level education.

Namal College Mianwali
7 years 2 months

Senior Lecturer
September 2011 - October 2018 (7 years 2 months)
Miānwāli, Punjab, Pakistan

My primary responsibility was to deliver undergraduate modules in the Dept. of Computer Science. Namal College (now Namal University) was then an Associate College of the University of Bradford, UK. I taught a number of different modules related to programming and software engineering. Besides teaching, I held several administrative positions as well.

Controller Examinations
September 2014 - August 2018 (4 years)
Miānwāli, Punjab, Pakistan

Improved several practices and procedures within the newly established Examinations and Partnership Office at Namal College. Outlined and disseminated various policies to define processes related to the conduct, evaluation, and communication of assessments.

Head of Department
August 2013 - August 2014 (1 year 1 month)
Miānwāli, Punjab, Pakistan

Managed day-to-day affairs of the department. Focused on student interactions and closer collaboration with the University of Bradford. Organized Namal's first Open House in May 2014.

Incharge Library

November 2011 - May 2014 (2 years 7 months)
Miānwāli, Punjab, Pakistan

I entirely upgraded the Namal Library, with the help of my team. We significantly raised the collection of books, infrastructure, and above all, the environment to facilitate learners. We also deployed a Library Management System and maintained a large collection of digital resources.

QC Technologies
Software Test Engineer
May 2013 - September 2013 (5 months)
Lahore, Punjab, Pakistan

Wrote automated test suites for a Python-based web application using the unittest framework. I also assisted in business acquisition to win development projects.

Lero
Doctoral Researcher
April 2008 - January 2011 (2 years 10 months)
Limerick, County Limerick, Ireland

The project I worked on was titled 'Evidential Assessment of Software Technologies' under the Software Product Line research area.

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology
Research Associate
July 2005 - January 2008 (2 years 7 months)
Topi, Dist. Swabi, KPK, Pakistan

Served in the Faculty of Computer Sciences & Engineering at the institute. Major responsibilities included: teaching undergraduate-level courses in computer science, co-supervising students in their final-year projects, and conducting collaborative research within the faculty.

National University of Computer and Emerging Sciences
Research Officer
August 2003 - September 2004 (1 year 2 months)
Lahore, Punjab, Pakistan

Assisted the research supervisor in the area of vision-based robot control (Visual Servoing). Research responsibilities included: studying and reviewing relevant publications, submission of proposed ideas as
technical reports and deliver tutorial presentations.

Education

University of Limerick

Doctor of Philosophy - PhD, Computer Science · (October 2018 - June 2023)

National University of Computer and Emerging Sciences

Master of Science - MS, Computer Science · (August 2001 - December 2004)

University of Engineering and Technology, Lahore

B.Sc., Mechanical Engineering · (March 1995 - December 2000)