

University Academic Curriculum Vitae

Personal information Hafiz Muhammad Ali Bhatti

Education since leaving school

- 2013- 2017 BS Computer Science (Government College University, Faisalabad)
- 2018-2021 MS Computer Science and Technology (Donghua University, China)
- 2023- present PhD Computer Science (Free University of Bozen-Bolzano)

Present appointment

- Title of appointment: PhD Student
- start of appointment: November 2023
- Level of appointment (international context)
- employer (Free University of Bozen-Bolzano, KNIME Co-funded project on Data Science)
- My responsibilities entail conducting research on medical imaging in terms of Data Science and contribute in the open source KNIME Analytics platform.

Professional experience Chronological list of all previous employments (each with job title, starting and finishing dates, level, employer, responsibilities)

From / to	Job title	Name of academic Institution	Academic level	responsibilities
2021-2023	Software Engineer	Malik Mahmood Sons		Software development
2021-2021	CTI in Computer Science Department	Government Associate College Kamoke, Gujranwala	High school	Teaching Courses (C++, OOP, Database)
2017-2018	Computer Instructor	Government College of Technology (TEVTA), Gujranwala	undergraduate	Teaching Courses (C++, OOP, Assembly Language and web development)

Experience in academic teaching **CTI in Computer Science Department at Government Associate College Kamoke, Gujranwala (2021-2021)**

- Courses Taught:
 1. C++
 2. Object-Oriented Programming (OOP)
 3. Database
- Subject Area: Computer Science
- Academic Level: High School

Computer Instructor at Government College of Technology (TEVTA), Gujranwala (2017-2018)

- Courses Taught:

1. C++
 2. Object-Oriented Programming (OOP)
 3. Assembly Language
 4. Web Development
- Subject Area: Computer Science
 - Academic Level: Undergraduate

Summary of Significant Personal Achievements in Teaching

- **Innovative Teaching Methods:** Introduced practical, hands-on projects in courses such as Web Development and Assembly Language, which significantly enhanced students' understanding and engagement.
- **Course Development:** Developed comprehensive course materials and assessments for C++, OOP, and Database courses that were highly praised by both students and faculty for their clarity and depth.
- **Student Performance:** Achieved high student satisfaction scores and excellent evaluation results, reflecting the effectiveness of the teaching methods and the quality of the courses.
- **Mentorship:** Provided mentorship and guidance to students on their projects and career planning, leading to several students successfully securing internships and job placements in reputable companies.
- **Recognition:** Received positive feedback and commendations from the administration for contributions to the academic development of the department.

Research and scholarships

- My current research and scholarship are centred on Data Science and Machine Learning, with a specific focus on healthcare applications. I have been deeply involved in brain age estimation and the evaluation of longitudinal time series relationships in MRI data. My work includes significant efforts in workflow automation, deployment, and the design of new extensions for KNIME to enhance its functionality and applications. This research is supported by a PNRR scholarship, allowing me to work on a data science project co-funded by KNIME. My overarching research interest lies in advancing data analysis using machine learning and artificial intelligence techniques to solve complex problems and improve patient outcomes.
- I did my master's from Donghua University where I worked on the biomedical imaging analysis and I obtained a scholarship for 3 years from Chinese Scholarship Council (CSC).
- I published four research articles during my masters degree (3 in conferences and 1 in Journal)
- At the moment, I have PNRR scholarship for 3 years.

Date granted	Award Holder(s)	Funding Body	Title	Amount received
2018	Hafiz Muhammad Ali Bhatti	Chinese Scholarship Council (CSC)	Chinese Government Scholarship	3000 RMB
2011	Hafiz Muhammad Ali Bhatti	Elite Science College	Need Based Scholarship	15000 Pkr

Publications

1. Multi-detection and Segmentation of Breast Lesions Based on Mask RCNN-FPN

H. M. A. Bhatti, J. Li, S. Siddeeq, A. Rehman and A. Manzoor, "Multi-

detection and Segmentation of Breast Lesions Based on Mask RCNN-FPN," 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Seoul, Korea (South), 2020, pp. 2698-2704, doi: 10.1109/ BIBM49941.2020.9313170.

2. Analysis and Detection of Lung Sounds Anomalies Based on NMA-RNN

A. Manzoor, Q. Pan, H. J. Khan, S. Siddeeq, H. M. A. Bhatti and M. A. Wedagu, "Analysis and Detection of Lung Sounds Anomalies Based on NMA-RNN," 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Seoul, Korea (South), 2020, pp. 2498-2504, doi: 10.1109/ BIBM49941.2020.9313197.

3. Deep Learning RN-BCNN Model for Breast Cancer BI-RADS Classification

Shahbaz Siddeeq, Jiyun Li, Hafiz Muhammad Ali Bhatti, Arslan Manzoor, and Umar Subhan Malhi. 2021. Deep Learning RN-BCNN Model for Breast Cancer BI-RADS Classification. In Proceedings of the 2021 4th International Conference on Image and Graphics Processing (ICIGP '21). Association for Computing Machinery, New York, NY, USA, 219–225.

4. Accurate and Direct GNSS/PDR Integration Using Extended Kalman Filter for Pedestrian Smartphone Navigation

Abdul Rehman, Hafiz Muhammad Ali Bhatti, et. al., "Accurate and Direct GNSS/PDR Integration Using Extended Kalman Filter for Pedestrian Smartphone Navigation," Journal of Gyroscopy and Navigation, vol. 11 (2), 124–137 (2020).

Statement of interest As a candidate for the TA position at unibz, I bring extensive experience in Data Science, Machine Learning, and teaching. My PNR-supported, KNIME co-funded project work aligns closely with the "Data Driven and Decision Making" course, which I currently teach. My background in courses like C++, OOP, and Database at previous institutions equips me well for this role. I am committed to fostering an innovative and inclusive academic environment at unibz. Overall, my skills and experience make me a strong candidate for contributing to unibz's research and academic programs.

Language competence

I possess a high level of proficiency in the English language. My understanding includes C1 level in both listening and reading, as well as C1 level in spoken interaction and writing. Additionally, I have a B2 level in spoken production, demonstrating strong capabilities in both spoken and written communication. This proficiency ensures my ability to effectively understand, speak, and write in English, making me well-equipped for academic and professional settings where English is the primary medium of communication.

Date. 29-07-2024