

Tariq Bdair

Curriculum Vitae



PERSONAL INFORMATION

Name: Tariq Mousa Bdair
Address: Amman – Jordan
Email: t.bdair@psut.edu.jo
Google Scholar: https://scholar.google.com/citations?hl=en&user=Wo_ApmgAAAAJ
GitHub: <https://github.com/tbdair>
LinkedIn: <https://www.linkedin.com/in/tariq-b-5a85381a/>

RESEARCH INTERESTS

Machine Learning, Deep Learning, Federated Learning, Semi-supervised Learning, Self-supervised Learning.

Industry Experience

Data Scientist, AI developer, Software Architect, Project Manager, and Team Leader.

EDUCATION

- 2018~(Aug, 2022) **PhD Student at Computer Science Department**
Supervisor: Prof. Dr. Nassir Navab
Technical University of Munich
Chair: Computer Aided Medical Procedures
<https://www.cs.cit.tum.de/camp/start/>
- 2016 **Master of Science**
Department of Computer Engineering
German Jordanian University, Amman, Jordan
Research focus: Medical image analysis, image processing, and machine learning
- 2005 **Bachelor of Science**
Department of Computer Engineering
Jordan University of Science and Technology, Irbid, Jordan
Graduation Project: Mobile alert system, C++, and Symbian OS
- 1999 **High School**
Irbid , Jordan
Average: 93.6% (Rank : 99.3 ~ top 0.7 %)

PUBLICATIONS

- [1] **Bdair, Tariq**, Nassir Navab, and Shadi Albarqouni. "Semi-Supervised Federated Peer Learning for Skin Lesion Classification" (MELBA, 2022).
- [2] **Bdair T**, Navab N, Albarqouni S. FedPerl: Semi-supervised Peer Learning for Skin Lesion Classification. MICCAI 2021 Sep 27 (pp. 336-346). Springer, Cham.
- [3] **Bdair T**, Navab N, Albarqouni S. ROAM: Random Layer Mixup for Semi-Supervised Learning in Medical Imaging. (IET Image Processing 2022)
- [4] **Bdair T**, Navab N, Albarqouni S. TriMix: Virtual embeddings and self-consistency for self-supervised learning. Under publishing.

[5] Daoud MI, Abdel-Rahman S, **Bdair TM**, Al-Najar MS, Al-Hawari FH, Alazrai R. Breast Tumor Classification in Ultrasound Images Using Combined Deep and Handcrafted Features. *Sensors*. 2020 Jan;20(23):6838.

[6] Daoud MI, **Bdair TM**, Al-Najar M, Alazrai R. A fusion-based approach for breast ultrasound image classification using multiple-ROI texture and morphological analyses. *Computational and mathematical methods in medicine*. 2016 Jan 1;2016.

RESEARCH EXPERIENCE

- 2018-2022 **TUM**
Munich, Germany
Research Assistant in the chair of computer aided medical procedures
I am working on medical image segmentation & classification. Specifically, I am applying the deep learning methods in the semi-supervised learning and federated learning frameworks.
- 1/2021-4/2021 **Helmholtz Munich
Institute of AI for Health**
Munich, Germany
I worked as a visiting researcher in the domain of federated learning.
- 2016-2018 **Research Assistant at Department of Computer Engineering**
German Jordanian University, Amman, Jordan
I involved in a research projects that focused on reconstructing and analyzing freehand 3D ultrasound volumes of breast cancer. In particular, I have applied image-processing, machine learning for characterizing and classifying the tumors in ultrasound images.

PROFESSIONAL EXPERIENCE

- 05/2022-6/2022 **UltiHash**
Berlin- Germany
Job Title: Head of AI
Duties: Leading a team to develop and optimize AI solutions.
- 11/2021-1/2022 **Beyond Limits AI**
Glendale CA -USA
Job Title: Data Scientist-Consulting
Duties: Development services as data scientist
- 2011-2018 **UN - UNRWA Headquarter**
Amman-Jordan
Job Title: Team Leader and Project Manager
Duties: Leading and developing large-scale web applications such as e-Health/Education online systems using Visual VB.Net, MSSQL Server, Crystal Report, Reporting Service, Ajax, JQuery.
- 2010-2011 **JValley Software Solutions**
Amman-Jordan

Job Title: Senior Software Engineer
 Duties: Developing web applications using Visual C# .Net, MSSQL Server_.

2005-2010

Hakaya Technologies

Amman-Jordan

Job Title: Senior Software Engineer

Duties: Leading and managing team to develop ERP system using Visual C# .Net, VB.NET, ADO.NET, MSSQL Server, MSSQL Express, Firebird DB, Crystal Reports.

2004-2005

Al Sadeem Technologies

Amman-Jordan

Job Title: Software Engineer.

Duties: Developing mobile applications and tools using Symbian C++ SDK (Nokia Devices 60 and 90 Series) and C++.

TECHNICAL SKILLS**Programming:**

- Python, PyTorch.
- C, C++, C#, Visual C# .Net, VisualBasic.Net, ADO.Net 2003/2005/2008.
- SQL, PLSQL, MSSQL Server 2000/2005/2008, Oracle 9i, Oracle Express 10g.

Software Engineering

- Excellent knowledge and expert in software development, testing and deployment.
- Design Patterns and Object oriented.
- Gathering requirements, Prototype, DFD, ER Diagrams, Uses Case Diagrams and Class Diagrams, Traceability Matrix, Technical Specification, Release Notes, Build Testing Check list, Business Case, URD, User Manual, Technical Manual.

TRAINING

2017

TOGAF 9.1

Amman-Jordan

Institute: impetus

2013

Information Technology Infrastructure Library, ITIL

Amman-Jordan

Institute: UNRWA

2012

Business Analysis; Business Analyst Body of Knowledge (BABOK)

Amman-Jordan

Institute: Transition Tech

2010

Microsoft Certified Professional, MCP

Amman-Jordan

Institute: Microsoft

2009

Leadership and management skills

Amman-Jordan

Institute: Pioneers for Training and Consultation

COMPETENCIES

- Excellent communications skills, and training skills and ability to make clear presentations.
- Team spirit and ability to establish and maintain effective working relationships.
- Ability to establish and maintain effective working relations in a multi-cultural, multi-ethnic environment with sensitivity and respect for diversity.
- Ability to convey complex technical concepts and recommendations to non-technical staff, both orally and in writing, in a clear, concise style.
- Ability to analyze complex problems and make sound decisions.
- Ability to independently plan and prioritize work, set clear objectives, work well under tight deadlines, monitor performance against deadlines and handle multiple concurrent projects.