

Engr. Dua Agha

Ambitious and self-motivated software engineer with a strong passion for creativity and proven ability to meet and exceed project requirements. Skilled in acquiring and refining essential software development competencies to support career growth. Experienced in fast-paced environments with expertise in managing multiple projects simultaneously.

BASIC INFORMATION

Email Address	duaagha2@gmail.com
LinkedIn	https://www.linkedin.com/in/dua-agha
ResearchGate	https://www.researchgate.net/profile/Dua-Agha

WORK EXPERIENCE

Lecturer-Computer Science & Information Technology (CSIT), NED NED University of Engineering and Technology, Karachi (Onsite)	August 2025 – Present
<ul style="list-style-type: none">Teaching specialized courses in Artificial Intelligence & Expert Systems, and Programming Languages focusing on core concepts, practical implementations, and industry relevance.	
Lecturer-Software Department, MUET Mehran University of Engineering & Technology, Jamshoro (Onsite)	July 2024 – August 2025
<ul style="list-style-type: none">Conducted specialized courses in Software Quality Engineering, Software Economics & Management, Human-Computer Interaction, Agent-Based Intelligent Systems, Web Engineering, and Software Construction & Development, emphasizing both theoretical foundations and practical applications.Actively engaged in Data Mining and Machine Learning research, contributing to publications and advancing knowledge in these fields.	
Junior Front-end Developer & Graphic Designer Martmox Pty Ltd, Queensland, Australia (Remote)	Sept 2022 – July 2024
<ul style="list-style-type: none">Proficient in creating visually compelling banners and website designs using HTML, CSS, and Adobe Photoshop.Skilled in implementing responsive and brand-consistent designs for optimal user experience across devices.Demonstrated expertise in translating design concepts into pixel-perfect graphic design, ensuring consistency with brand guidelines and aesthetics.	
Web Development Intern Ghani Business Solutions, Hyderabad, Pakistan (Hybrid)	Jan 2021 – Mar 2021
<ul style="list-style-type: none">Developed web pages and components using HTML5, CSS3, & JavaScript.Worked alongside backend to troubleshoot JavaScript-related issues with front-end connectivity.Conceptualized, designed, & developed a comprehensive E-Library system.Successfully integrated backend systems to enable efficient data management & retrieval.	

EDUCATION

Master of Engineering (Software Engineering)

Feb 2022 – May 2024

Mehran University of Engineering and Technology, Jamshoro, Pakistan
3.95 CGPA

Bachelor of Engineering (Software Engineering)

Oct 2017 – Nov 2021

Mehran University of Engineering and Technology, Jamshoro, Pakistan
3.84 CGPA

Intermediate (Pre-Engineering)

Aug 2015 – May 2017

78%- Grade A, Board of Intermediate and Secondary Education, Hyderabad, Pakistan

Matriculation (Pre-Engineering)

Aug 2013 – Apr 2015

79.17 %- Grade A, Board of Intermediate and Secondary Education, Hyderabad, Pakistan.

PROJECTS

Improving Mobile Battery Time and Processing Capabilities Using Cloud Computing

- Developed an Android application “Battery Optimizer” as final year project to optimize mobile phone processing by detecting battery drainage & filtering data.
- Used Cloud Computing techniques like data offloading method for monitoring & managing battery usage effectively.

Library House

- Developed a full-stack e-book portal, key features include book categorization, downloadable PDFs, an e-commerce section for book purchases, user authentication, & access control for authorized administrators.
- Managed backend operations with an interactive admin panel, performing CRUD operations on database.

Distributors Hub

- Developed a comprehensive platform for local distributors, featuring both web & mobile applications.
- Key functionalities include inventory management, which triggers the robust distributor management system, ensuring efficient tracking & distribution of goods, seamless cross-platform functionality, ensuring efficient & responsive user experiences.

SKILLS

- Python - Pandas · Matplotlib · Numpy · Seaborn · Scikit-learn · TensorFlow.
- Front-End Development - HTML5 · CSS3 · JavaScript
- Graphic Design - Adobe Illustrator · Adobe Photoshop · Gimp · Canvas · Figma
- Microsoft Office - Word · Excel · PowerPoint
- Project Management, Responsive Design & Code Optimization

COURSES & CERTIFICATIONS

- Shortlisted In 5th Forum for Women in Research ([Certificate](#)).
- Transfer Learning for NLP with TensorFlow Hub
- Google Data Analytics Professional Certificate (v2)
- Learning Data Analytics ([Certificate](#))
- Graphic Design ([Certificate](#))
- Create and Design Digital Products using Canva ([Certificate](#))
- Basic Elements of Design: Design Principles and Software Overview ([Certificate](#))

RESEARCH & PUBLICATIONS

- Sami, M., Agha, D., Baloch, J., Dewani, A., & Maheshwari, K. D. (2024). Efficient Object Detection and Voice-Assisted Navigation for the Visually Impaired: The Smart Hat Approach. Sukkur IBA Journal of Computing and Mathematical Sciences, 8(2), 1-12.
(<https://journal.iba-suk.edu.pk:8089/SIBAJournals/index.php/sjcms/article/view/1535>)
- Agha, D., Kumari, V., & Meghji, A. F. (2024). Enhancing Mobile Efficiency: A Cloud Powered Paradigm for Extended Battery Life and Enhanced Processing Capabilities. International Journal of Innovations in Science & Technology, 6(1), 58–69.
(<https://journal.50sea.com/index.php/IJIST/article/view/645>)
- Agha, D., Meghji, A. F., Bhatti, S., & Memon, M. (2023). Educational Data Mining in Outcome-Based Education: An Analysis of Predictive Models for Program Learning Outcome Attainment. VAWKUM Transactions on Computer Sciences, 11(2), 123- 138.
(<https://vfast.org/journals/index.php/VTCS/article/view/1706>)
- Agha, D., Meghji, A. F., & Bhatti, S. (2023). Clusters of Success: Unpacking Academic Trends with K-Means Clustering in Education. VFAST Transactions on Software Engineering, 11(4), 15-31.
(<https://vfast.org/journals/index.php/VTSE/article/view/1633>)
- Agha, D., Sohail, R., Meghji, A. F., Qaboolio, R., & Bhatti, S. (2023). Test Driven Development and Its Impact on Program Design and Software Quality: A Systematic Literature Review. VAWKUM Transactions on Computer Sciences, 11(1), 268-280.
(<https://vfast.org/journals/index.php/VTCS/article/view/1494>)