

Shakra Batool

CONTACT INFORMATION	MCB 8/45 Mohallah Anwar abad, Chakwal, shakra.batool123@gmail.com Pakistan
RESEARCH INTERESTS	Image Classification, Image Segmentation, Machine Learning, Deep Learning, Data Mining, Feature Extraction
EDUCATION	COMSATS University , Islamabad, Pakistan. BS. Bioinformatics Feb. 2017 - Jan. 2021 <ul style="list-style-type: none">• CGPA: 3.46 out of 4.0• Thesis: Breast Cancer Detection and Segmentation using Convolutional Neural Networks. Kallar Kahar Science College , Chakwal, Pakistan. FSc. Pre-medical June. 2013 - May. 2016 Relevant Courses: Artificial Intelligence and Neural Networks, Bioinformatics Analysis, Deep Learning, Deep Learning in Medicine
RESEARCH PROJECTS	<ul style="list-style-type: none">• Cancer Detection using Mobilenet Approach: I evaluated several CNN models including VGG16, ResNet50, and MobileNet to detect tumors from mammograms and histopathological images. For training and testing CBIS-DDSM dataset is used which is an updated and standardized version of the Digital Database for Screening Mammography (DDSM). Outcome: Trained MobileNet models which are able to accurately classify the tumor into benign and malignant classes• Cancer Segmentation using UNet Approach: I used the UNet model for training on a publically available dataset namely Data Science Bowl 2018. Training dataset contains images along with the mask of nuclei present in images. Outcome: A trained UNet model is able to segment the nuclei present in images.
COURSE PROJECTS	<ul style="list-style-type: none">• Auto diabetes detection using logistic regression on the microbiome of human body• Identification and Extraction of specific human proteins using dictionaries and suffix trees• Restaurant Management System with online reservation system using Object Oriented Programming• Wampus World game in which an intelligent agent has to move with different arrows and to get the GOLD for winning the game.• MUSINTO: A game for kids to teach rhymes, alphabets, and numbers
LANGUAGES AND TOOLS	<ul style="list-style-type: none">• Languages: Java, C++, Python, SQL, R, Matlab. I am also familiar with HTML, Visual Studio, C#, and FORTRAN.• Tools: Eclipse, Idle, Google Colab, Netbeans, Visual Studio, MS SQL Server, XAMP.

OTHER SKILLS	<ul style="list-style-type: none"> • Drug Designing by receptor-ligand binding using Bioinformatics Softwares including Hex Software, Ligplot Plus, PDB Editor, Chimera, and Wincoot. • Study of DNA of different species using NCBI, EBI, and SwissProt . • DNA to Proteins Conversions using Bioinformatics Tool ExPasy. • Identifying Novel proteins and compare their sequences with other protein's sequences using BLAST, FASTA, Rasmol, ClustalW, and Emboss. • Microsoft Word, Microsoft Exel, Microsoft Powerpoint, and Microsoft Access.
EXPERIENCE	<p>NCAI-MID Lab, COMSATS, Islamabad, Pakistan.</p> <p>Works with Ahmad Raza Shahid on Deep Learning, and Medical Image Processing.</p>
VOLUNTEER WORK	<ul style="list-style-type: none"> • Fund raising and distribution to local deserving people affected by COVID-19 • Awareness talk on Muscular Dystrophy and Thalasyemia • Hospital visit to understand the cause and effects of Muscular Dystrophy and Thalasyemia in young children.