

NOUMAN AHMAD

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EDUCATION

- **Master of Science in Computer Science**, Comsats University Islamabad, Islamabad Pakistan. **CGPA 3.76/4**
Thesis title: *Transfer Learning Assisted Multi-Resolution Breast Cancer Histopathological Images Classification.*
- **Bachelor of Science Computer Science** PMAS Arid Agriculture University Rawalpindi, Pakistan. **CGPA 3.23/4**
Project title: *Automated Payroll with Gps tracking and image capture.*

RESEARCH AND DEVELOPMENT EXPERIENCE

Research Assistant Department of Surgical Sciences, Radiology and molecular imaging, Uppsala University Sweden
Currently working

- Working on a problem of Oncology, MRI, CT, PET images and Explainable AI.

Computer Vision & Machine Learning Engineer Softbox Technologies, Islamabad Pakistan

- Worked on a problem of Image Classification and segmentation, Real-time Object Detection, Face Recognition, Medical Imaging Classification, Facial Emotion Detection

Research Assistant Department of Computer Science, Comsats University Islamabad

- Worked on a problem of Breast Cancer Image Classification, Explainable AI and GAN
- Writing academic papers on achieved findings

Teacher Assistant Department of Computer Science, Comsats University Islamabad

- Taught Programming Languages C and C++

Network Engineer Karwan Al Siddiqui Pvt, Rawalpindi, Pakistan

2017–2018

- Worked as setting up, developing and maintaining computer networks

RESEARCH INTEREST

Computer Vision, Machine Learning, Deep Learning, Medical Imaging, Explainable AI, Image Processing, NLP

TECHNICAL SKILLS

- **Data Science:** Data Processing, Computer Vision, Machine/Deep Learning, Data Visualization, NLP.
- **Programming:** Python(Tensorflow, OpenCV, Keras, PyTorch, Scikit-learn, Numpy, Pandas, Matplotlib), C sharp, JAVA, C and C++.
- **Web:** HTML, CSS, JAVASCRIPT, Wordpress
- **Framework:** Django, Flask, ASP.Net, Flutter.
- **Techniques:** CNN, GAN, LSTM, Autoencoder, Explainable AI, Transfer Learning, Segmentation, Classification, Clustering, Attention Mechanism, Digital Image Processing, Feature Engineering, and so on.
- **Softwares:** VScode, PyCharm, Sublim Text, Notepad++, Spyder, Latex, Android Studio, Visual Studio, MS Visio, MS Word & Office
- **Database:** MySQL, MSSQL, PostgreSQL, SQLite, mongoDB
- **Others:** Anaconda, Colab, Git, Overleaf, Docker, Unity3D, Google ML Kit, Jupyter Notebook, Linux OS.
- **Misc.:** Academic research, teaching, training, consultation, \LaTeX typesetting and publishing.

ACADEMIC PUBLICATIONS

Journal Publications

- J.1. Ahmad, Nouman, Sohail Asghar, and Saira Andleeb Gillani. "Transfer learning-assisted multi-resolution breast cancer histopathological images classification." *The Visual Computer* (2021): 1-20. <https://doi.org/10.1007/s00371-021-02153-y>

Conference Publications

- C.1. Ahmad, N., Javaid, N., Mehmood, M., Hayat, M., Ullah, A., & Khan, H. A. (2018). Fog-cloud based platform for utilization of resources using load balancing technique. *International Conference on Network-Based Information Systems*, 554–567
- C.2. Nazar, T., Javaid, N., Waheed, M., Fatima, A., Bano, H., & Ahmed, N. (2018). Modified shortest job first for load balancing in cloud-fog computing. *International Conference on Broadband and Wireless Computing, Communication and Applications*, 63–76.

ACADEMIC PROJECTS

- **Image Classification** : This project is done on Histopathological image classification using VGG-16 and Resnet-50 model on google cloud Platform .
- **Image Segmentation** : This project is done on MRI image Segmentation using U-Net on google cloud Platform .
- **Cifar-10 Dataset Classification** : This project is done using Cifar-10 dataset train CNN model on google cloud Platform than built an Flask Web app and deploy on GCP Cloud.
- **Super Resolution GAN** : Development of application that is able to create high resolution image form a blurry image.

- **Machine Learning Chatbot** : This project is done using text dataset and train a ANN model.And deploy the model using Flask App chat Application.
- **Unity Based Game With Turing Machine** : Build a Unity based Robo Defence game in Theory of Computing (ToC) course with different automate machines (PDA, Turing machine) work backed to understand the functionalities of these machines.
- **Cancer Survival Prediction** : Build a Multi-layer Perception Neural Network for Cancer Survival Prediction for binary classification dataset.

CERTIFICATION/COURSES

- **Deep Learning in Computer Vision**. Offered by National Research University Higher School of Economics.
- **Mathematics & Statistics of Machine Learning & Data Science**. Offered by Udemey.
- **Microsoft AI Classroom Series**. Offered by Microsoft.
- **Computer Vision Basics**. Offered by The State University of New York.
- **Data Science Math Skills**. Offered by Duke University.
- **AWS Computer Vision: Getting Started with GluonCV**. Offered by AWS.
- **Developing AI Applications on Azure**. Offered by learnQuest.
- **Getting Started with AWS Machine Learning**. Offered by AWS.
- **Cloud Computing Basics (Cloud 101)**. Offered by learnQuest.
- **Artificial Intelligence Concepts**. Offered by IBM.
- **Learning Data Analytics**. Offered by LinkedIn Learning.
- **Introduction to Data Science**. Offered by IBM Developer Skills Network.
- **Deep Learning with TensorFlow**. Offered by IBM Developer Skills Network.
- **Machine Learning with Python**. Offered by IBM Developer Skills Network.
- **Deep Learning Fundamentals**. Offered by IBM Developer Skills Network.
- **Docker Essentials: A Developer Introduction**. Offered by IBM Developer Skills Network.
- **Python And Django Framework For Beginners Complete Course**. Offered by Udemey.
- **Python Introduction to Data Science and Machine learning**. Offered by Udemey.

OTHER PROJECTS

- **Breast Cancer Classification with Deep Learning**
- **State Farm Distracted Driver Detection**
- **Drowsiness detection while Car Driving**
- **Image Segmentation with Machine Learning**
- **Detecting Parkinson's Disease with XGBoost**
- **X-rays classification using Deep Learning Models**
- **Real Time Face mask detection using OpenCV**
- **Build Retrieval based Chatbots by python**
- **Dates classification using android application**
- **Plant Disease Classification with Tensorflow Lite on Android**
- **Skin disease and classification with Tensorflow lite on Android**
- **Deep Fake (Deep Learning, Google Colab)**
- **Face Recognition Based Attendance System using OpenCV python**
- **Real time Social Distancing using Python and OpenCV**
- **Vehicle detection YoloV3**
- **Document Classification using Machine Learning**
- **Counting cars with a neural network classifier from drone footage**
- **Twitter Sentimental Analysis**
- **Stock Price Prediction using Machine Learning**
- **Detecting Fake News with Python**
- **Real-time Human Detection and Counting**
- **Age and Gender Detection using Deep Learning Python**
- **Image Caption Generator with CNN and LSTM**
- **Chatbot using NLTK and Keras**
- **Traffic Signs Recognition with 95% Accuracy using CNN & Keras**
- **Cats vs Dogs Classification (with 98.7% Accuracy) using CNN Keras**
- **Brain Tumor Detection Using CNN**
- **Heart Disease Prediction Using Machine Learning Techniques**
- **Handwritten Digit Recognition Using OpenCV and Deep Learning**
- **Detecting COVID-19 in X-ray images with Keras, TensorFlow and Deep Learning**
- **lot base criminal identification system Using OpenCV**
- **Document Layout Segmentation using Computer Vision**

OTHER SKILLS

Software Microsoft Word, Excel, and PowerPoint, Inkscape
Languages English: professional proficiency. Urdu

ACADEMIC REFERENCES

Dr. Sohail Asghar

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COMSATS University Islamabad, Pakistan.

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Dr. Manzoor Ilahi Tamimy

Associate Professor

COMSATS University Islamabad, Pakistan.

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Dr. Shahid Hussain

Assistant Professor

University of Oregon, USA.

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Assistant Professor

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Dr. Mubeen Ghafoor

Assistant Professor

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