

Safia Fatima

safia.fatima@nu.edu.pk :: <https://safiafatima.github.io>
<https://www.linkedin.com/in/safiafatima>

EDUCATION

AI for Medicine Specialization Coursera	August 2020-To Date
M.Sc. Computer Science NUCES, Pakistan – GPA: 3.44/4.00	August 2016-January 2019
B.Sc. Computer Science NUCES, Pakistan – GPA: 3.15/4.00	August 2012-May 2016
F.Sc. Computer Science Pakistan – Marks: 892/1100	August 2010-May 2012

PUBLICATIONS

Evaluation of Multi-Modal MRI Images for Brain Tumor Segmentation (Published)	February 2020
<ul style="list-style-type: none">• Conference: ICET'19 The 15th International Conference on Emerging Technologies, Pakistan• Presentation Schedule: Peshawar, Pakistan, December 3rd, 2019	

TECHINICAL SKILLS

Programming Languages: JAVA, C++/C, Python, JavaScript, Bash
Machine Learning: Supervised/Unsupervised Learning, Generative Models, Deep Learning, Natural Language Processing
Analytics: Jupyter, SQL, Excel
Tools/Libraries: PyTorch, OpenCV, Tensorflow, Keras, Sklearn, Git, CUDA, Flask

SUPERVISION OF UNDERGRAD PROJECTS

DeepFake: DeepFake Video Detection (In Progress)	September 2020-To Date
Stock Market Data Analysis and Prediction using Time Series (In Progress)	September 2020-To Date

RESEARCH PROJECTS

UNet-Cap: Segmentation and Localization of Glioblastomas Using Capsules and U-Net (In Progress)	July 2020-To Date
Evaluation of Multi-Model Brain MRI Images for the Localization of Glioblastomas	January 2018-January 2019
<ul style="list-style-type: none">• A method that incorporates a deep learning-based model U-Net to address brain tumor localization.• Utilizing BRATS2015 as the primary dataset for Brain MRI Images.• Using the same architecture for the evaluation of individual modalities.	

WORK EXPERIENCE

FAST-NUCES, Peshawar – Lecturer	August 2020 - To Date
<ul style="list-style-type: none">• Promoted under Computer Science Department as a Lecturer.• Teaching courses including software design & analysis and object-oriented programming• Supervising CS undergraduate projects in the fields of computer vision, deep learning, and time series analysis.	
FAST-NUCES, Peshawar – Lab Instructor	January 2018 – July 2020
<ul style="list-style-type: none">• Worked under Computer Science Department as a Lab Instructor.• Involved in teaching courses including Introduction to Computing, Databases, and Digital Logic Design.• Gained skills in SQL, Python, and C++ programming languages.	

KEY PROJECTS

Bron Kerbosch Algorithm (Github)	December 2017
<ul style="list-style-type: none">• Code for implementing the BK algorithm to show all maximal cliques and one maximum clique from within set of maximal cliques.• Implemented in C language using Graph Theory concepts.	
Gene Ontology Classification of Protein Sequence Using Fully Connected Neural Networks (GitHub)	January 2018
<ul style="list-style-type: none">• Annotation of protein sequences with gene ontology (GO) classes using deep neural networks.• Experimented on yeast dataset using python and Tensorflow.	
Data Dissemination for Bioinformatics: An Agent Migration Approach (FYP-BSCS)	May 2016
<ul style="list-style-type: none">• An agent migration approach to fill in the: retrieving remote data in a low-quality network environment, especially unstable mobile computing environments and do the client-side computation on the server end.• User will be able to see his/her activity graphically visualized logs and statistics on their smartphone screen.• The proposed approach can also overcome the resource limitation of mobile terminals and release mobile users from keeping online persistently.	

KEY ACHIEVEMENTS & AWARDS

Faculty Head ACM-Student Chapter - NUCES, Pakistan	January 2020-To Date
Learning to Teach Online Certification – Coursera	July 2020 - August 2020
2x Bronze Medal -NUCES, Pakistan	August 2012-May 2016
Dean's List Certification Holder -NUCES, Pakistan	August 2012-May 2016
Vice-chairperson and International Member of ACM Student Chapter - NUCES, Pakistan	August 2014-May 2016