Safia Fatima

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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

- **Conference:** ICET'19 The 15th International Conference on Emerging Technologies, Pakistan
- **Presentation Schedule:** Peshawar, Pakistan, December 3rd, 2019

TECHINCAL 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

RESEAERCH 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

- 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

- Promoted under Computer Science Department as a Lecturer.
- Teaching courses including software design & analysis and object-oriented programing
- 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

- 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

Extraction of opcodes from the source file of Android app — September 2017

- Building an algorithm to identify only the opcode of android application.
- Implemented using Python in Anaconda environment.

Data Dissemination for Bioinformatics: An Agent Migration Approach (FYP-BSCS) — May 2016

- 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.

IDE decision tree learning algorithm for decision making using Machine Learning — May 2016

- Given a dataset with the discrete values, it concludes whether yes or no? Decided on the basis of probability.
- Utilized Python and Scikit-learn framework for achieving higher accuracy.

KEY ACHIEVEMENTS & AWARDS

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