Aizaz Sharif

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EDUCATION

M.Sc. Computer Science NUCES, Pakistan – GPA: 3.61/4.00	August 2017-July 2019
Data Analyst Nanodegree Udacity	Dec 2016-August 2017
Deep Learning Nanodegree Udacity	January 2017-July 2017
B.Sc. Computer Science NUCES, Pakistan - GPA: 3.84/4.00	August 2012-May 2016

PUBLICATIONS

Evaluation of Multi-Modal MRI Images for Brain Tumor Segmentation (Accepted) — November 2019
Function Identification in Android Binaries Using Deep Learning (Accepted) — September 2019
- **Conference:** CANDAR'19 The Seventh International Symposium on Computing and Networking
- **Presentation Schedule:** Nagasaki, Japan, November 27, 2019

Android Malware Detection through Generative Adversarial Networks (Published) — July 2019
- **Journal:** Transactions on Emerging Telecommunications Technologies

TECHINCAL SKILLS

Programming Languages: JAVA, C++/C, Python, JavaScript, Go, Bash

Machine Learning: Supervised and Unsupervised Learning, Generative Models, Deep Learning, Natural Language Processing

Analytics: Jupyter, SQL, Tableau, Excel, R

Tools/Libraries: PyTorch, OpenCV, Tensorflow, Keras, Tesseract, NodeJs, Sklearn, Git, CUDA, Flask

KEY PROJECTS

Handwriting Generation using Recurrent Neural Networks (GitHub) — June 2018
- PyTorch implementation of Conditional + Unconditional Handwriting generation on 3-dimensional sequence dataset.
- Implemented Handwriting Synthesis with the help of LSTM and Attention Mechanism using Python.

Bron Kerbosch Algorithm (GitHub) — May 2018
- 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.

Search and Sample Return (GitHub) — September 2017
- Utilizing Computer Vision to train Rover in a Mars Planet simulation capable of identifying rocks, obstacles, and paths with high fidelity.
- Requires OpenCV in Python as well as Socket Programming.

WORK EXPERIENCE

National Center for Cyber Security (NCCS), Pakistan – Research Associate — February 2019-To Date
- Leading a small team of software developers for the 'Mobile Phone Digital Forensics' toolkit.
- Learned Mobile Forensic concepts in 2 months and highlighted the challenges faced during the criminal investigations.
- Developed a plan of Software development execution that will compete with the current commercial tools.
- Implementing a Python based Flask backend for handling all the REST API calls of the User interface and SQLite for Android device databases.
- Constructing a web application for the acquisition, analysis, and reporting of Android devices for criminal investigation
- Maintaining a Software workflow which will be released to the authorities for beta testing by the end of August 2019.

NUCES, Pakistan – Research Assistant — September 2017-February 2019
- Worked under 'Colab' Research group for the campus.
- Involved in research areas related to GANs, Android Malware Detection, Graph Theory, and Medical Imaging.
- Co-wrote and published a paper at 'Transactions on Emerging Telecommunications Technologies' Journal.

DCUBE Technologies, Pakistan - Software Engineer — April 2017-June 2017
- Worked under the 'Product Innovation and Strategy' team.
- Integrated state-of-the-art OCR libraries in 1 month to an ongoing C++ based large scale library for live deployment.
- Tested Deep Learning based OCR libraries on letters images provided by Pitney Bowes and TCS.
- Increased the accuracy of the OCR prediction by 10% along with performance optimization.
- Gained Skills in OCR Pipeline, Python Linux Shell Scripting, Computer Vision and Deep Learning.

Techlogix, Pakistan - Software Engineer — October 2016-April 2017
- Worked as a Software Engineer for the implementation and support of FLEXCUBE which is Oracle's Universal Banking Solution.
- Implemented a workflow using PL/SQL for a smooth migration process from old to the proposed Oracle Solution under strict deadlines.
- Provided continuous support to the migrated system for running daily ongoing transactions with ease.

KEY ACHIEVEMENTS & AWARDS

CANDAR Outstanding Paper - CANDAR'19 Seventh International Symposium on Computing and Networking, Japan	November 2019
1x Bronze Medal - NUCES, Pakistan	October 2019
7x Gold Medals and 1x Silver Medal - NUCES, Pakistan	August 2012-May 2016
7x Deans List and 1x Rector List Certifications - NUCES, Pakistan	August 2012-May 2016