

# Aizaz Sharif

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## EDUCATION

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

## PUBLICATIONS

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<b>Advancing Blockchain with AI for IIoT Challenges</b> ( <a href="#">Submitted</a> )	February 2020
<b>Evaluation of Multi-Modal MRI Images for Brain Tumor Segmentation</b> ( <a href="#">Published</a> )	February 2020
• <b>Conference:</b> ICET'19 The 15th International Conference on Emerging Technologies, Pakistan	
<b>Function Identification in Android Binaries Using Deep Learning</b> ( <a href="#">Published</a> )	January 2020
• <b>Conference:</b> CANDAR'19 The Seventh International Symposium on Computing and Networking, Japan	
<b>Android Malware Detection through Generative Adversarial Networks</b> ( <a href="#">Published</a> )	July 2019
▪ <b>Journal:</b> Transactions on Emerging Telecommunications Technologies	

## TECHINICAL SKILLS

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**Programming Languages:** JAVA, C++/C, Python, JavaScript, Go, Bash  
**Machine Learning:** Supervised/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

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<b>Handwriting Generation using Recurrent Neural Networks</b> ( <a href="#">GitHub</a> )	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.	
<b>Bron Kerbosch Algorithm</b> ( <a href="#">GitHub</a> )	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.	
<b>Search and Sample Return</b> ( <a href="#">GitHub</a> )	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

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<b>Simula Research Laboratory, Norway</b> – Ph.D. Researcher	February 2020-To Date
▪ Joined as a Ph.D. student in the 'Department of Validation Intelligence for Autonomous Software Systems'.	
▪ Involved in research areas related to Software Engineering, Artificial Intelligence, and Autonomous Systems.	
<b>National Center for Cyber Security (NCCS), Pakistan</b> – Research Associate	February 2019-January 2020
▪ Lead 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.	
▪ Implemented a Python based Flask backend for REST API calls of the user interface and SQLite for Android device databases.	
▪ Constructed a web application for the acquisition, analysis, and reporting of Android devices for criminal investigation	
▪ Maintained a Software workflow which will be released to the authorities for beta testing.	
<b>NUCES, Pakistan</b> – 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.	
<b>DCUBE Technologies, Pakistan</b> - 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.	
<b>Techlogix, Pakistan</b> - 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

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