SAMI UL HAQ

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EXPERIENCE

Assistant Manager
Ministry of Defence

📅 Oct 2018 – Present   📍 Islamabad, Pakistan

– Cognitive Content Analysis, Text Classification, Topic Modelling, Text Summarization

Software Engineer
Pakistan Air Force (PAF)

📅 July 2013 – Sep 2018   📍 Islamabad, Pakistan

– Design and implemented distributed architecture applications for Air Defence Systems
– Implemented libraries and customized network protocols for cross-platform development on Window, Linux and Mac OS systems
– Performed system integration and interfacing with multiple national and international Command & Control Systems

RESEARCH PROJECTS

1. **"Document Level Neural Machine Translation of Low Resourced Languages"** (Research Work: PhD)

   In Doctoral research work, we are using techniques like Backtranslation, Domain Adaptation and Transfer Learning to improve performance of NMT systems for low-resourced languages.

   Publication: "*Document Level NMT of Low-Resource Languages with Backtranslation." Proceedings of the Fifth Conference on Machine Translation. 2020*

2. **"Reverse Engineering UML Structural and Behavioural Features from Java Source Code"** (Semester Project: Post-Graduation)

   In this project, Java source code is parsed and AST is inspected to construct static and dynamic models. EMF-UML in Eclipse is used to generate dynamic and static models of target system.

   Publication: "*A Model Driven Reverse Engineering Framework for Generating High Level UML Models from Java Source Code"*, IEEE Access, 2019, Volume 7, Pages 158931 - 158950

3. **"Model Driven Approach for Modelling and Analysis of Physical Infrastructure Protection"** (Thesis: Post-Graduation)

   This project is extension of industry standard Unified Modeling Language to provide modeling support for physical security aspects and automatic generation of Bayesian Network models to perform quantitative.

   Publication: "*A Novel Approach for Modeling Security Aspects of Physical Infrastructures"*, International Conference on High Performance Compilation, Computing and Communications (HP3C-2017)

AWARDS

- **2011-2013 Academic Scholarship Award**
  Institute of Information Technology, QAU, Pakistan

- **2016 Vice Chancellors Gold Medal**
  Institute of Information Technology, QAU, Pakistan

- **2017 Certificate of Appreciation**
  Pakistan Air Force (PAF), Pakistan

EDUCATION

PhD in Software Engineering
National University of Sciences and Technology

📅 2018 – Present   📍 Islamabad, Pakistan

MS in Software Engineering
National University of Sciences and Technology

📅 2014 – 2017   📍 Islamabad, Pakistan

MSc in Information Technology
Quaid i Azam University (QAU)

📅 2011 –2013   📍 Islamabad, Pakistan

PROGRAMMING SKILLS

Python/ Scikit-learn ●●●●●
Machine/ Deep Learning ●●●●●
C/ C++ ●●●●●
Java ●●●●●
Javascript ●●●○○
Matlab ●●●○○
Latex ●●●○○

TECHNICAL SKILLS

Network Programming   Multithreading
Thread Synchronization
Machine Learning   Deep Learning
NLP   Data Analytics
Text Classification   GPU Optimization
IBM ALM   UML   MOF   ECORE

OTHER PUBLICATIONS

- "*Improving Document-Level Neural Machine Translation with Domain Adaptation.*", In Proceedings of the Fourth Workshop on Neural Generation and Translation (pp. 225-231).

- "*FJWU participation for the WMT20 Biomedical Translation Task.*", Proceedings of the Fifth Conference on Machine Translation. 2020.

- "*Ontology Based Test Case Generation for Black Box Testing.*", Proceedings of the 2019 8th International Conference on Educational and Information Technology. 2019.