Fatima**Rani**

Software Engineer

Experience

09/19 - 01/21 Researcher/Analyst UGROUND GLOBAL, S.L, Madrid, Spain

My research is related to the enhancement of the low-code development plat-form "ROSE" which is B2T concept; also "bridging the gap" between aca-demic research and industrial needs.

- Improve the limitation of LCDPs in terms of scalability, interoperability & heterogeneity by a model-driven approach.
- Create multi-view graphical editors on the cloud by visual modelling (syntax, semantics, interaction); and the migration of the desktop IDE to a cloud-based environment.

02/18 - 08/19 Lecturer (Computer Science & Software Engineering) Bahria University & APCOMS, Pakistan

The ultimate aim of my job was to train highly qualified personnel to fulfil the needs of industry and academia.

- Participated in research collaborations, supervisory and examination committees, and delivered lectures.
- *Courses*: Microprocessor and Interfacing; Programming Fundamen-tals(C/C++); Object Oriented Software Engineering(UML); Int to SE etc.

01/11 - 11/17 ICT Consultant Asif & Umar Associates. Pvt Limited, Rawalpindi, Pakistan

Preparing, designing and/or scrutinising different software for structural draw-ings and designs.

01/07 - 03/10 IT Engineer Defense Science and Technology Organization (DESTO) Chattar, Islamabad, Pakistan

Worked on different software projects. For example;

Radar Systems - SAF/ELINT: Parametric extraction and classification of radars signals. Implementation of multiple PRIs on sensor interface, clas-sifier & threat processor as suggested by 1ALRG.

Indigenous IP Phone Prototype: IP Telephone which can send secure data in full-duplex mode.

Development of FM based DF System: Development of DF display from three different sites for FM based system on digitized Map.

Education

2012 - 2016 Master's Degree in Software Engineering University of Engineering and Technology Taxila, Pakistan

Thesis: "Robust Real-Time Video Streaming Analysis Algorithm for Situation Awareness through Hand Gestures"; CGPA: 3.62/4.0

Languages: VC#. Net, MATLAB

Tools: MATLAB 9.0, Visual Studio.NET 2013, Afroge.Net Framework, Emgu Cv, LaTeX

2002 - 2006 Bachelor's Degree in Software Engineering Fatima Jinnah Women University, The Mall, Rawalpindi, Pakistan

Thesis: "Video Based Effective Density Measurement for Wireless Traffic Control Application"; CGPA: 3.41/4.0

Languages: VC#. Net, MATLAB
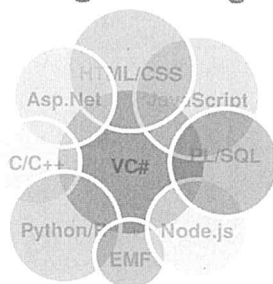
Tools: MATLAB 7.0, Visual Studio .NET 2005

Publications

2020	**Automated Migration of EuGENia Graphical Editors to the Web** Fatima Rani, Pablo Díez, Enrique Chavarriaga, Esther Guerra, and Juan de Lara ACM/IEEE 23rd International Conference on Model Driven Engineering Languages and Systems(MODELS'20), Virtual Event, Canada
2016	**Robust Real-Time Video Streaming Analysis Algorithm for Situation Awareness through Hand Gestures** Fatima Rani, Dr. Ali Javed International Journal of Modern Education and Computer Science (IJMECS)
2007	**Video Based Effective Density Measurement for Wireless Traffic Control Application** Fatima Rani, Ruddaba Awan 3rd International Conference on Emerging Technologies, IEEE ICET

Languages

Urdu ★ ★ ★ ★ ★

English ★ ★ ★ ★ ☆

Español ★ ☆ ☆ ☆ ☆

Certifications & Training

07/2020	**Data Science and Machine Learning** Virtual Event Training on Int. to Data Science, Machine Learning, SQL and RStudio by Paul Taylor; Exploratory Data Analysis by Blaise Egan; Future of AI by Detlef Nauck, British Telecommunications(BT), UK; Information Retrieval & Machine Learning by Iván Cantador, UAM, ES
06/2020	**Eclipse Theia Kick Starter Training** Virtual Event Workshop by Dr. Jonas Helming, Eclipse Source, München, DE
06/2020	**Scientific Paper Writing** Virtual Event Training by Prof. Juan de Lara, Universidad Autónoma de Madrid (UAM), ES
02/2020	**AWS Technical Essentials & AWS MicroServices** UAM, ES Workshop by Wilson Santana Technical Training Instructor, AWS, London, UK
02/2020	**Cloud Computing and Virtulization** UAM, ES Workshop by Assoc. Prof. Helene Coullon & Jonathan Pastor, IMT Atlantique, Nantes, FR
12/2019	**Model Driven Engineering Foundations and Tools** IMT Atlantique, FR Training by Prof. Dimitris Kolovos, University of York, UK

Programming

HTML/CSS
Asp.Net JavaScript
C/C++ VC# PL/SQL
Python/R Node.js
EMF

Personal Skills

Initiative
Diligent
Team Lead Organize
Problem Solving
Contented

Supervised Research & Dissertation

Feb- 2019	**Malicious Malware Detection** AI, Desktop Application Advanced Malware Detection using Signature and Behavior by Artificial Neural Network
Sep- 2018	**Context Aware Smart Car Application** Android Application Context Aware Smart Car Android Application for Personal Assistance
Sep- 2018	**Human Activity Recognition** Computer Vision Video Analytics Algorithm for Human Activity Recognition
Sep- 2018	**Green Wave Route for Wireless Traffic Control Application** Emulator / Simulation Robust Real-Time Video Streaming Analysis Algorithm for Effective Green Wave Route for Wireless Traffic Control Application