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SUMMARY

Currently working as a post-Doctoral fellow in the field of exploration and recognition of minerals from the scanning electron microscope (SEM) based grain images using machine learning and deep learning techniques at University of Quebec, Canada. This project is directly funded by the Quebec, Canada Government for Nature and Technologies (FRQNT). I am also holding position as Research Coordinator, Deanship of Research and Graduate Studies, Prince Mohammad bin Fahd University, Saudi Arabia.

10+ years of offshore AI/ML/CV Industry Experience	Worked on **120+** ML/AI/IT industry projects as Freelance	**70+** ISI/Scopus Indexed Research Publications in **AI/ML** since March 2017	**8+** years of University Teaching Experience
Google Scholar i10-index is **21** with **692** citations	ResearchGate Index score is **22.48**	Acquired international research grants for **7** Projects	Delivered presentation in **12+** international Conferences
6 times **1st** Position in International Events/Conferences	Designed **13** Courses and Labs Syllabi	**17** different Courses and **12** different Courses-Labs conducted at PMU	**6** Professional Certifications and **3** Professional Trainings
Certified Instructor for **20+** CISCO courses	**20+** Senior Design Projects Supervision	Granted **2** US Patents and **4** Patents are under review	Merit Scholarships for **MS, BS, FSc**

RESEARCH AND DEVELOPMENT INTEREST

- Artificial Intelligence
- Minerals Recognition
- Data Science
- Internet of Things
- Machine Learning
- Computer Vision
- Data Mining
- Big Data Analysis
- Deep Learning
- Natural Language Processing
- Medical Image Processing
- Robotics

EDUCATION

UNIVERSITY OF QUEBEC, CHICOUITIMI — **Quebec (Canada)**
Faculty of Computer Science and Information Technology (2021-to date)
Post-Doctoral Fellow *(Artificial Intelligence / ML / DL – working on Minerals Recognition)*

UNIVERSITY OF MALAYSIA, SARAWAK — **Sarawak (Malaysia)**
Faculty of Computer Science and Information Technology (2016-2021)
PhD *(Computer Science – Specialization in AI / Deep Learning)*

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS — **Dhahran (Saudi Arabia)**
Information Computer Science Department (2011-2014)
MS-CS *(Computer Science – Specialization in Machine Learning)*

NATIONAL UNIVERSITY COMPUTER AND EMERGING SCIENCES — **Islamabad (Pakistan)**
Computer Sciences Department (2006-2010)
BS (Computer Science)

PUNJAB COLLEGE OF SCIENCE AND TECHNOLOGY — **Multan (Pakistan)**
Pre-Engineering Department (2004-2006)
FSc (Pre-Engineering)

ACHIEVEMENTS AND AWARDS: ACADEMIC / RESEARCH / INDUSTRY

- ✓ Received an **honorary membership** of National Academy of Inventors (NAI), A member organization comprising most reputable U.S. and international universities (2022).
- ✓ Received **best PhD award along with Gold Mold and Shield** in the field of Machine Learning from University of Malaysia Sarawak, Malaysia (2021).
- ✓ Received **Permanent Residence nomination in Canada (Quebec)** based on Special **Artificial Intelligence** Pilot Program in 2021 (only 150 were nominated across the world).
- ✓ Got most **Research Productivity Award 2020-2021** from Prince Mohammad bin Fahd University.
- ✓ Got **best research paper award** in Current Research on Information Technology, Mathematics Sciences, Science and Technology (CRIMSTIC 2019), Melaka, Malaysia.
- ✓ Got **best research paper award** in 7th International Conference on Computer Science, Engineering and Technologies (ICCSET 2018), Bangkok, Thailand.
- ✓ Got **Bronze Award** in Innovation & Technology Exposition (InTEX 2018), Kuching, Malaysia for my research poster on "Automated Brain Tumor Detection, Analysis, and Visualization System".
- ✓ Got **1st position** in Software & Hardware Competition in mega event ITEC-2010 held at NED University of Engineering and Technology, Karachi, Pakistan.
- ✓ Got **1st position** in ACM Software Project Competition by presenting my Final Year Project "Brain Inspector" held in FAST-NUCES, Islamabad, Pakistan.
- ✓ Got **1st position** in Software Competition while overall in Hardware & Software Competition got 2nd position in NUTEC-2010 Peshawar, Pakistan.
- ✓ My Final Year Project "Brain Inspector" short-listed in Top four Software Project of Pakistan for **Microsoft Imagine Cup 2010** by Microsoft.
- ✓ Got full time **scholarship** for MS in Computer Science from King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.
- ✓ Got full merit **Scholarship** of 1.3 million rupees for BS Computer Science at National University of Computer and Emerging Sciences, form Ministry of Information Technology, Pakistan.
- ✓ Got full merit **scholarship** for FSc Pre Engineering at Punjab College of Information Technology Multan from Punjab Group of Colleges, Pakistan.
- ✓ Remained two times in FAST-NUCES **Dean's Honor List** during BS-CS Degree, National University of Computer and Emerging Sciences, Islamabad Pakistan.
- ✓ Got **Best** Marketing Promotional Campaign and Best Group Chemistry Merit Certificates in Marketing Mavericks PromoPower Competition 2009 organized by National University of Computer and Emerging Sciences, Islamabad, Pakistan.

ADVANCED SKILLS/TOOLS

- **Research Tools:** Anaconda, TensorFlow, OpenCV, Pandas, skLearn, pyTorch, NumPy, Keras
- **Machine Learning/ Deep Learning:** CNN, RNN, LSTM, MLP, Regression, Decision Trees, etc.
- **Programming Languages:** Python, C, C++, VB, C#, Shell, Bash, Java, PHP, ASP, MATLAB
- **Robotics/Embedded Systems:** Arduino, Rasberry Pi, MakeBlock, Dextor
- **Cloud Services:** Amazon Web Services, Rackspace, Windows Azure, Linode, GoogleCloud
- **Deployments:** Apache, NGINX, IIS, MS-RDS, Live Streaming, Wowza, Red5, Adobe Encoder
- **Development Tools:** VS .NET, SQL Management Studio, NetBeans, Dreamweaver, Python IDE
- **Design Tools:** MS Visio, MS Project, Photoshop, Fireworks, Zend Framework, Premiere Pro
- **Operating Systems:** MS Server 2020/2016/2012, Linux, Raspbian, Ubuntu, RedHat, Android
- **Database Management:** MS SQL, My SQL, SPARQL, Oracle, phpMyAdmin
- **Web based Development:** ASP.net, PHP, XML, HTML5, JavaScript, CSS3
- **Technical Support:** Application Deployment and Bugs Fixing, Cloud Computing

RESEARCH PUBLICATIONS

US Patents (Total: 3)

1. **Ghazanfar Latif**, (2022). U.S. Patent No. 11,227,387. Multi-stage brain tumor image processing method and system. *Washington, DC: U.S. Patent and Trademark Office*. https://patents.google.com/patent/US11227387B2

   Granted in 2022 (***US Patent***).
2. **Ghazanfar Latif**., Alghazo, J., Alufaisan, S., Albur, W., & Alsedrah, S. (2022). *U.S. Patent No. 11,393,361*. Washington, DC: U.S. Patent and Trademark Office. https://patents.google.com/patent/US11393361B1/en

   Granted in 2022 (***US Patent***).
3. **Ghazanfar Latif et al.**, Braille Reader System using Deep Learning Framework. *US Patent*.

   Officially filed and Patent Revision submitted in 2022 (***US Patent***).

International Journals (Total: 34)

4. **Ghazanfar Latif**, Morsy, H., Hassan, A., & Alghazo, J. (2022). Novel Coronavirus and Common Pneumonia Detection from CT Scans Using Deep Learning-Based Extracted Features. *Viruses*, *14*(8), 1667.

   Published in July 2022 (***ISI Impact Factor: 5.818***).

5. Butt, M. M., Iskandar, D. N. F., Abdelhamid, S. E., **Ghazanfar Latif**, & Alghazo, R. (2022). Diabetic Retinopathy Detection from Fundus Images of the Eye Using Hybrid Deep Learning Features. *Diagnostics*, *12*(7), 1607.

   Published in May 2022 (***ISI Impact Factor: 3.992***).

6. **Ghazanfar Latif**, Kévin Bouchard, Julien Maitre, Arnaud Louis Abel Back, L. Paul Bédard, Deep Learning–Based Automatic Mineral Grain Segmentation and Recognition, *Minerals*, 2022.

   Published in March 2022 (***ISI Impact Factor: 2.644***).

7. **Ghazanfar Latif**, Faisal Yousif Al Anezi, D.N.F. Awang Iskandar, Abul Bashar, and Jaafar Alghazo. (2022). Recent Advances in Classification of Brain Tumor from MR Images – State of the Art Review from 2017 to 2021. *Current medical imaging, (In press)*.

   Published in 2022 (***ISI Impact Factor: 0.858***).

8. **Ghazanfar Latif**, Ben Brahim, G., Iskandar, D. N. F., Bashar, A., & Alghazo, J. (2022). Glioma Tumors' Classification Using Deep-Neural-Network-Based Features with SVM Classifier. *Diagnostics*, *12*(4), 1018.

   Published in April 2022 (***ISI Impact Factor: 3.992***).

9. Majid Ali Khan, Nazeeruddin Mohammad, Ghassen Ben Brahim, Abul Bashar, **Ghazanfar Latif**, Writer Verification of Partially Damaged Handwritten Arabic Documents based on Individual Character Shapes, *PeerJ Computer Science, 2022, (In press)*.

   Published in March 2022 (***ISI Impact Factor: 1.390***).

10. **Ghazanfar Latif**, Al Anezi, F.Y., Sibai, F.N., Alghazo, J., (2021), Lung Opacity Pneumonia Detection with Improved Residual Networks. *Journal of Medical and Biological Engineering* https://doi.org/10.1007/s40846-021-00656-6, Springer Nature.

    Published in 2021 (***ISI Impact Factor: 1.553***).

11. **Ghazanfar Latif**, Alghazo, J., Sibai, F. N., Iskandar, D. N. F., & Khan, A. H. (2021). Recent advancements in Fuzzy C-means based techniques for brain MRI Segmentation. *Current medical imaging*, *17*(8), 917-930.

    Published in 2021 (***ISI Impact Factor: 0.858***).

12. Bashar, A., **Ghazanfar Latif**, Ben Brahim, G., Mohammad, N., & Alghazo, J. (2021). COVID-19 Pneumonia Detection Using Optimized Deep Learning Techniques. *Diagnostics*, *11*(11), 1972.

    Published in 2021 (***ISI Impact Factor: 3.992***).

13. **Ghazanfar Latif**, N. Saravanakumar, Jaafar Alghazo, P. Bhuvaneswari, K. Shankar, Muhammad O. Butt, (2020), Scheduling and Resources Allocation in Network Traffic using Multiobjective, Multiuser Joint Traffic Engineering, *Wireless Networks, 2020, Springer*.

    Published in July 2020 (***ISI Impact Factor: 2.405***).

14. **Ghazanfar Latif**, Iskandar, D. N. F. A., Alghazo, J., & Butt, M. M. (2020). Brain MR Image Classification for Glioma Tumor detection using Deep Convolutional Neural Network Features. *Current Medical Imaging, DOI: 10.2352/J.ImagingSci.Technol.2019.63.2.020502*.

Published in March 2020 (***ISI Impact Factor: 0. 858***).

15. **Ghazanfar Latif**, Jaafar Alghazo, R. Maheswar, V. Vijayakumar, Mohsin Butt (2020), Deep Learning based Intelligence Cognitive Vision Drone for Automatic Plant Diseases Identification and Spraying, *Journal of Intelligent & Fuzzy Systems*, IOS Press.

Published in July 2020 (***ISI Impact Factor: 1.637***).

16. Roychowdhury, P., Alghazo, J. M., **Ghazanfar Latif**, (2020). POID: a passive all-optical inter-rack interconnect for data-centers. *Wireless Networks*, 1-13, In Press.

Published in November 2020 (***ISI Impact Factor: 2.405***).

17. Alghazo J, Rathee G, Gupta S, Tabrez Quasim M, Murugan S, **Ghazanfar Latif**, Dhasarathan V. (2020) A Secure Multimedia Processing through Blockchain in Smart Healthcare Systems. *Transactions on Multimedia Computing, Communications, and Applications (TOMM), ACM.*

Published in April 2020 (***ISI Impact Factor: 2.870***).

18. **Ghazanfar Latif**, Achyut Shankar, Jaafar M. Alghazo, V. Kalyanasundaram, C.S. Boopathi and M. Arfan Jaffar, I-CARES: Advancing Health Diagnosis and Medication through IoT, *Wireless Networks, 2019, Springer*.

Published in September **2019** (***ISI Impact Factor: 2.405***).

19. **Ghazanfar Latif**, DNF Awang Iskandar, Jaafar M. Alghazo, and Nazeeruddin Mohammad, "Enhanced MR Image Classification Using Hybrid Statistical and Wavelets Features", *IEEE Access*, *7*, 9634-9644, (2018).

Published in December 2018 (***ISI Impact Factor: 4.098***).

20. **Ghazanfar Latif**, DNF Awang Iskandar, Jaafar Alghazo, and Arfan Jaffar, "Improving brain MR image classification for tumor segmentation using phase congruency." *Current Medical Imaging Reviews* 14.6 (2018): 914-922.

Published in March **2018** (***ISI Impact Factor: 0.533***).

21. Khan, Adil H., Jawad F. Al-Asad, and **Ghazanfar Latif**. "Speckle suppression in medical ultrasound images through Schur decomposition." *IET Image Processing* 12.3 (2017): 307-313.

Published in October **2017** (***ISI Impact Factor: 2.004***).

22. Alghazo, Jaafar M., **Ghazanfar Latif**, Loay Alzubaidi, and Ammar Elhassan. "Multi-Language Handwritten Digits Recognition based on Novel Structural Features." *Journal of Imaging Science and Technology* 63, no. 2 (2019): 20502-1.

Published in March **2019** (***ISI Impact Factor: 0.46***).

23. Al-Asad, J. F., Khan, A. H., **Ghazanfar Latif**., & Hajji, W. (2019). QR based Despeckling Approach for Medical Ultrasound Images. *Current medical imaging*, *15*(7), 679-688.

Published in August **2018** ***(ISI Impact Factor: 0.533)***.

24. Jaffar, M. Arfan, Sultan Zia, **Ghazanfar Latif**, Anwar M. Mirza, Irfan Mehmood, Naveed Ejaz, and Sung Wook Baik, Anisotropic Diffusion based Brain MRI Segmentation and 3D Reconstruction, *International Journal of Computational Intelligence Systems*, Volume 5, Issue 3, 2012, pages 494-504.

(***ISI Impact Factor: 1.89***).

25. **Ghazanfar Latif**, Alghazo, R., Pilotti, M. A., & Brahim, G. B. (2021). Identifying" At-Risk" Students: An AI-based Prediction Approach. *International Journal of Computing and Digital System*.

Published in **2021 (*Scopus Indexed Journal*)**.

26. **Ghazanfar Latif**, Alghazo, J., Mohammad, N., & Alghazo, R. (2021, July). Communicating with the Deaf and Hard of Hearing through Automatic Arabic Sign Language Translator. In *Journal of Physics: Conference Series* (Vol. 1962, No. 1, p. 012055). IOP Publishing.

Published in **2021 (*Scopus Indexed Journal*)**.

27. **Ghazanfar Latif**, Mohammad, N., AlKhalaf, R., AlKhalaf, R., Alghazo, J., & Khan, M. (2020). An Automatic Arabic Sign Language Recognition System based on Deep CNN: An Assistive System for the Deaf and Hard of Hearing. *International Journal of Computing and Digital Systems*, *9*(4), 715-724.

Published in August **2020 (*Scopus Indexed Journal*)**.

28. Danyah A. Alghmgham, **Ghazanfar Latif**, Jaafar Alghazo, Loay Alzubaidi, Autonomous Traffic Sign (ATSR) Detection and Recognition using Deep CNN, Procedia Computer Science, Volume 163, pp. 266-274, 2019.

Published in **January 2020 (Elsevier, Scopus).**

29. M. Mohsin Butt, **Ghazanfar Latif**, D.N.F. Awang Iskandar, Jaafar Alghazo, Adil H. Khan, Multi-channel Convolutions Neural Network Based Diabetic Retinopathy Detection from Fundus Images, Procedia Computer Science, Volume 163, pp. 283-291, 2019.

Published in **January 2020 (Elsevier, Scopus).**

30. Al-Hmouz, A., **Ghazanfar Latif**, Alghazo, J., & Al-Hmouz, R. (2020). Enhanced Numeral Recognition for Handwritten Multi-language Numerals Using Fuzzy Set-Based Decision Mechanism. *International Journal of Machine Learning and Computing*, *10*(1).

Published in March **2020 (*Scopus Indexed Journal*)**.

31. **Ghazanfar Latif**, Nazeeruddin Mohammad, Jaafar Alghazo, Roaa AlKhalaf, and Rawan AlKhalaf. "ArASL: Arabic Alphabets Sign Language Dataset." *Data in Brief* 23 (2019): 103777.

Published in April 2019 (***Scopus Indexed Journal***).

32. Loay Alzubaidi, **Ghazanfar Latif**, Real time License Saudi Plate Recognition Using Raspberry Pi, *International Journal of Advanced Trends in Computer Science and Engineering*, Volume 8 (1.1), pp. 42-47, 2019.

Published in August 2019 (***Scopus Indexed Journal***).

33. **Ghazanfar Latif**, Kinza Waqar, Shifa Khaja Muhieitheen, Sarah Imran Khan, Majid Ali Khan, Loay Alzubaidi, Enhanced Deep CNN Models for Underwater Fish Classification, *International Journal of Recent Technology and Engineering (IJRTE), 2019*.

    Accepted in April **2019 (*Scopus Indexed Journal***).

34. Loay Alzubaidi, **Ghazanfar Latif**, Jaafar M. Alghazo, Mohammed Zikria, Cloud-Based Interactive Hands free E-Learning Environment for Students with Disabilities, *International Journal of Recent Technology and Engineering (IJRTE), Volume-8 Issue-3*.

    Published in November **2019 (*Scopus Indexed Journal***).

35. Alghazo, J. M., **Ghazanfar Latif**, Elhassan, A., Alzubaidi, L., Al-Hmouz, A., & Al-Hmouz, R. (2017). An Online Numeral Recognition System Using Improved Structural Features–A Unified Method for Handwritten Arabic and Persian Numerals. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, *9*(2-10), 33-40.

    Published in May **2018** (***Scopus Indexed Journal***).

36. **Ghazanfar Latif**, Iskandar, D. A., Alghazo, J., Butt, M., & Khan, A. H. (2018). Deep CNN based MR Image Denoising for Tumor Segmentation using Watershed Transform. *International Journal of Engineering & Technology, 7(2.3), 37-42*.

    Published in February **2018** (***Scopus Indexed Journal***)

37. **Ghazanfar Latif**, Iskandar, D. A., Jaffar, A., & Butt, M. M. (2017). Multimodal Brain Tumor Segmentation using Neighboring Image Features. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, *9*(2-9), 37-42.

    Published in May **2017** (***Scopus Indexed Journal***)

International Conference Publications (Total: 25)

38. **Ghazanfar Latif**; Faisal Anezi; M. Omair Butt; Jaafar Alghazo, Residual Networks based Classification of Right Whales in the Ocean, *3rd SMART Cities Symposium, IET Digital Library*.

    Presented and published in **2021 (IET Inspec., Scopus).**

39. Shahad Alghamdi, Mariam Alabkari, Fatima Aljishi, **Ghazanfar Latif**, Abul Bashar, Lung Cancer Detection from LDCT images using Deep Convolutional Neural, *International Conference on Communication, Computing and Electronics Systems (ICCCES 2020)*. Springer.

    Presented and published in **October 2021 (Springer, Scopus)**.

40. R. Al-Haddad; F. Sahwan; A. Aboalmakarem; **Ghazanfar Latif**; Yasmeen Alufaisan, Email Text Analysis for Fraud Detection through Machine Learning Techniques, *3rd SMART Cities Symposium, IET Digital Library*.

    Presented and published in **2021 (IET Inspec., Scopus).**

41. **Ghazanfar Latif**, Alghazo, J., Butt, M., & Kazimi, Z. A. (2021, June). Fast Parallel SVM based Arrhythmia Detection on Multiple GPU Clusters. In *2021 10th IEEE International Conference on Communication Systems and Network Technologies (CSNT)* (pp. 669-673). IEEE.

Presented and published in **2021 (IEEE, Scopus)**.

42. Saleh Al-Faraj, Mustafa Al-Bahrani, Saeed Al-Ghamdi, Marwan Rafie, Abul Bashar, **Ghazanfar Latif**, CNN-based Alphabet Identification and Sorting Robotic Arm, *International Conference on Communication, Computing and Electronics Systems (ICCCES 2020)*. Springer.

Presented and published in **2021 (Springer, Scopus)**.

43. Shurouq Alufaisan, Wafa Albur, Shaikha Alsedrah, and **Ghazanfar Latif**, Arabic Braille Numeral Recognition using Convolutional Neural Networks, International Conference on Communication, Computing and Electronics Systems (ICCCES 2020). Springer.

Presented and published in **2021** (**Springer, Scopus**).

44. Alghazo, J., Bashar, A., **Ghazanfar Latif**, & Zikria, M. (2021, June). Maritime Ship Detection using Convolutional Neural Networks from Satellite Images. In *2021 10th IEEE International Conference on Communication Systems and Network Technologies (CSNT)* (pp. 432-437). IEEE.

Presented and published in **2020 (IEEE, Scopus).**

45. **Ghazanfar Latif**, Alsalem, B., Mubarky, W., Mohammad, N., & Alghazo, J. (2020, April). Automatic Fruits Calories Estimation through Convolutional Neural Networks. In *Proceedings of the 2020 6th International Conference on Computer and Technology Applications* (pp. 17-21).

Accepted and Presented in **April 2020 (ACM, Scopus).**

46. Mahmoud, A. A., Alawadh, I. N. A., **Ghazanfar Latif**, Alghazo, J. (2020, April). Smart Nursery for Smart Cities: Infant Sound Classification Based on Novel Features and Support Vector Classifier. In *2020 7th International Conference on Electrical and Electronics Engineering (ICEEE)* (pp. 47-52). IEEE.

Accepted and Presented in **April 2020 (IEEE, Scopus).**

47. **Ghazanfar Latif**, Faisal Yousif Al Anezi, Mohammad Zikria, Jaafar Alghazo, EEG-ECG Signals Classification for Arrhythmia Detection using Decision Trees, *2020 Fourth International Conference on Inventive Systems and Control (ICISC) (pp. 192-196). IEEE*.

Accepted and Presented in **January 2020 (IEEE, Scopus).**

48. **Ghazanfar Latif**, Muhammad O. Butt, Jaafar Alghazo, Ultrasound Image Despeckling and detection of Breast Cancer using Deep CNN, *IEEE International Conference on Research, Innovation and Vision for the Future*, April 6-7, 2020, Vietnam.

Presented and published in **January 2020 (IEEE, Scopus).**

49. Sarwar M Haque, **Ghazanfar Latif**, Rafiul Hasan, Arifuzzaman, Shakib S Shafin, Quazi A Rahman, Scalable Fast Parallel SVM on Cloud Clusters for Large Datasets Classification, *2nd Smart Cities Symposium 2019*, (IET's INSPEC).

Presented and published in **2019 (IET, Scopus).**

50. Loay Alzubaidi, **Ghazanfar Latif**, Jaafar Alghazo, Affordable and Portable Realtime Saudi License Plate Recognition using SoC, 2nd International Conference on new Trends in Computing Sciences (ICTCS'19), 9-11 October 2019, Amman, Jordan.

Presented and published in **2019 (IEEE, Scopus).**

51. Eman Shaikh, Iman Mohiuddin, Ayisha Manzoor, **Ghazanfar Latif**, Nazeeruddin Mohammad, Automated Grading for Handwritten Answer Sheets using Convolutional Neural Networks, 2nd International Conference on new Trends in Computing Sciences (ICTCS'19), 9-11 October 2019, Amman, Jordan.

Presented and published in **July 2019 (IEEE, Scopus).**

52. Adil H. Khan, **Ghazanfar Latif**, D.N.F. Awang Iskandar, Jaafar Alghazo, Mohsin Butt, Segmentation of Melanoma Skin Lesions using Anisotropic Diffusion and Adaptive Thresholding, *8th International Conference on Biomedical Engineering and Technology (ICBET 2018), International Conference Proceedings Series by ACM (ISBN: 978-1-4503-6369-3).*

Presented and published in **2018** (**ACM, Scopus**)

53. **Ghazanfar Latif**, D.N.F. Awang Iskandar, Jaafar Alghazo, Multiclass Brain Tumor Classification using Region Growing based Tumor Segmentation and Ensemble Wavelet Features, *International Conference on Computing and Big Data (ICCBD 2018), Charleston, South Carolina, USA (ACM)*.

Presented and published **2018** (**ACM, Scopus**).

54. **Ghazanfar Latif**, Jaafar Alghazo, Loay Alzubaidi, M. Muzzamal Naseer, Yazan Alghazo, Deep Convolutional Neural Network for Recognition of Unified Multi-Language Handwritten Numerals, *2nd IEEE Int. Workshop on Arabic and derived Script Analysis and Recognition (ASAR), March 12-14, 2018, The Alan Turing Institute, London-UK*.

Presented and published in **2018 (IEEE, Scopus)**.

55. Maitham A Al-Dobais, **Ghazanfar Latif**, Fahad Abdulrahman G Alrasheed, Loay Alzubaidi, Adoptive Thresholding and Geometric Features based Physical Layout Analysis of Scanned Arabic Books, *2nd IEEE Int. Workshop on Arabic and derived Script Analysis and Recognition (ASAR), March 12-14, 2018, The Alan Turing Institute, London-UK*.

Presented and published in **2018 (IEEE, Scopus)**.

56. **Ghazanfar Latif**, M. Mohsin Butt, Adil H. Khan, Omair Butt, and DNF Awang Iskandar. "Multiclass brain Glioma tumor classification using block-based 3D Wavelet features of MR images." In *4th International Conference on Electrical and Electronic Engineering (ICEEE)*, pp. 333-337, Ankara Turkey, IEEE.

Presented and published **2017 (IEEE, Scopus)**.

57. Jaffar Alghazo, Zafar Kazmi, **Ghazanfar Latif**, Cyber Security Analysis of Internet Banking in Emerging Countries: User and Bank Perspectives, *4th IEEE International Conference on Engineering Technologies and Applied Sciences (ICETAS)*.

    Presented and published in **2017(IEEE, Scopus).**

58. Jaafar M. Alghazo, Faisal Yousif Al Anezi, **Ghazanfar Latif**, Mohammad Mohsin Butt, Sustainable Economic Development through IT Workforce in Saudi Arabia, *2nd International Conference on Emerging Research for Sustainable Economic Development (2nd ERSED-2018), Manama Bahrain.*

    Presented and published in **2018.**

59. **Ghazanfar Latif**, M. Mohsin Butt, Adil H. Khan, M. Omair Butt, Jawad F. Al-Asad, Automatic Multimodal Brain Image Classification using MLP and 3D Glioma Tumor Reconstruction, *9th IEEE-GCC Conference and Exhibition (IEEE-GCC)*.

    Presented and published in **2017(IEEE, Scopus)**.

60. **Ghazanfar Latif**, Adil H. Khan, M. Mohsin Butt, Omair Butt, IoT based Real-time Voice Analysis and Smart Monitoring System for Disabled People, *International Conference on Advanced Research (ICAR- 2017), Manama Bahrain, pp. 191-199.*

    Presented and published in **2017.**

61. **Ghazanfar Latif**, Muhammad Mohsin Butt, and Adil Humayun Khan, Eye Click: Eye Gaze based User Interface for the Disabled People, *International Conference on Technology for Helping People with Special Needs* (ICTHP-2013).

    Presented in 2013.

62. Qurat-Ul-Ain, **Ghazanfar Latif**, Sidra Batool Kazmi, M. Arfan Jaffar, and Anwar M. Mirza, Classification and Segmentation of Brain Tumor using Texture Analysis, *in International Conference on Artificial Intelligence, Knowledge Engineering and Databases (AIKED 2010)*, University of Cambridge UK Pages: 147-155, ISBN ~ ISSN:1790-5109, 978-960-474-154-0.

Book Chapters (Total: 7)

63. **Ghazanfar Latif**, Alghazo, J. M., Maheswar, R., Sampathkumar, A., & Sountharrajan, S. (2020). IoT in the Field of the Future Digital Oil Fields and Smart Wells. In *Internet of Things in Smart Technologies for Sustainable Urban Development* (pp. 1-17). Springer, Cham.

    Published in **2020 (Springer, Scopus).**

64. **Ghazanfar Latif**, Alghazo, J. M., Maheswar, R., Jayarajan, P., & Sampathkumar, A. (2020). Internet of Things: Reformation of Garment Stores and Retail Shop Business Process. In *Integration of WSN and IoT for Smart Cities* (pp. 115-128). Springer, Cham.

    Published in **2020 (Springer, Scopus).**

65. **Ghazanfar Latif**, Alghazo, J. M., Maheswar, R., Jayarajan, P., & Sampathkumar, A. (2020). Impact of IoT-Based Smart Cities on Human Daily Life. In *Integration of WSN and IoT for Smart Cities* (pp. 103-114). Springer, Cham.

Published in **2020 (Springer, Scopus).**

66. Debnath, Biswajit, Jaafar M. Alghazo, **Ghazanfar Latif**, Reshma Roychoudhuri, and Sadhan Kumar Ghosh. "An Analysis of Data Security and Potential Threat from IT Assets for Middle Card Players, Institutions and Individuals." In *Sustainable Waste Management: Policies and Case Studies*, pp. 403-419. Springer, Singapore, 2020.

Published in **2020 (Springer, Scopus).**

67. **Ghazanfar Latif,** Jaafar Alghazo, (2020), IoT based Cloud based Rx Healthcare Expert System, Fog Computing for Healthcare 4.0 Environments: Technical, Societal, and Future Implications, Springer.

Published in **November 2019 (Springer, Scopus).**

68. **Ghazanfar Latif,** Jaafar Alghazo, and Zafar Kazmi (2022), Security Enabling for IoT and Wireless Sensor Networks based Data Communication, *Advanced Wireless Communication and Sensor Networks: Applications and Simulations*, Taylor & Francis.

Accepted in **August 2022 (Taylor & Francis Group, Scopus).**

69. **Ghazanfar Latif,** Jaafar Alghazo, and Sherif E. Abdelhamid (2022), Social Impacts of Technology with the Emergence of IoT, 5G and Artificial Intelligence, *Advanced Wireless Communication and Sensor Networks: Applications and Simulations*, Taylor & Francis.

Accepted in **August 2022 (Taylor & Francis Group, Scopus).**

Research Poster Presentations

70. Wafa Albur, Shorouq Alufaisan, Shaikha Alsedrah, **Ghazanfar Latif**, Arabic Braille Words Recognition using Deep Learning Techniques, *2020 PMU International Conference on Industrial Revolution 4.0 in Computing, Mobility, and Manufacturing (CMM 2020)*, Khobar, Saudi Arabia.
71. Shahad Abdullah Alghamdi, Lama Adel Boubshait, Reem Ali Alsadiq, **Ghazanfar Latif**, Jaafar Alghazo, Arabic Handwritten Word Recognition using Deep Convolutional Neural Networks, *IEEE International Conference on Imaging Systems & Techniques (IST)*, 2019, Abu Dhabi, UAE.
72. Nouf Aljasim, Ayat Alali, Zahra Alhamad, **Ghazanfar Latif**, Jaafar Alghazo, Detection of defects in Oil-Pipes using Autonomous Robots through Image Analysis, *IEEE International Conference on Imaging Systems & Techniques (IST)*, 2019, Abu Dhabi, UAE.
73. **Ghazanfar Latif**, Dayang Nurfatimah, Automated Brain Tumor Detection, Analysis, and Visualization System, *Innovation & Technology Exposition (InTEX18),* Kuching, Malaysia, 2018.

INTERNATIONAL CONFERENCES ATTENDED AS PRESENTER

1. International Conference on Computing and Big Data (ICCBD 2018), Charleston, South Carolina, USA (ACM).
2. 4th International Conference on Electrical and Electronic Engineering, Ankara Turkey (IEEE).
3. 8th International Conference on Biomedical Engineering and Technology (ICBET 2018), Bali, Indonesia (ACM).
4. 4th International Conference on Engineering Technologies and Applied Sciences (ICETAS), Manama, Bahrain (IEEE).
5. 16th International Learning and Technology Conference: Artificial Intelligence and Machine Learning: Intelligence is Power, January, Jeddah, Saudi Arabia, (Elsevier).
6. 7th International Conference on Computer Science, Engineering and Technologies (ICCSET 2018), Bangkok, Thailand (Scopus).
7. 10th International Conference on Information Technology in Asia (CITA`17), Kuching, Malaysia.
8. International Conference on Technology for Helping People with Special Needs (ICTHP-2013), Riyadh Saudi Arabia.
9. 3rd Scientific Conference, Ministry of Higher Education, Khobar, Saudi Arabia.
10. 4th Current Research on Information Technology, Mathematics Sciences, Science and Technology, Melaka, Malaysia (Scopus).
11. International Conference on Communication, Computing and Electronics Systems (ICCCES), October 20-22, 2020, Coimbatore, India (IEEE – Virtual due to COVID).
12. International Conference on Research, Innovation and Vision for the Future, April 6-7, 2020, Vietnam (IEEE – Virtual due to COVID).
13. 3rd SMART Cities Symposium, IET Digital Library, September 21-23, 2020, Manama, Bahrain, (IET Inspect – Virtual due to COVID).

RESEARCH GRANTS

1. Ghazanfar Latif (PI), 18,780 (SAR), Innovative Education System for the Blind: AI based Arabic Braille Language System. *Prince Mohammad Bin Fahd Center for Futuristic Studies (PMFCFS) Research Grant* 2022, *Prince Mohammed bin Fahd University*, Saudi Arabia (**2022-2023)**.
2. Ghazanfar Latif (project team member), 381,000$ valued grant that team secured at the "Fonds de recherche du Québec – Nature et technologies", University of Quebec, Canada (**2021-2022**).
3. Ghazanfar Latif (project team member), 90,800 (SAR), Fast Diagnosis of Covid-19 using Convolutional Neural Networks. *Qassim University, Grant # UCC-BS-2020-1-3-10146 from Ministry of Higher Educatio*n, Saudi Arabia (**2020-2022**).

4. Ghazanfar Latif (PI), 27,500 (SAR), Medical Image Processing: Brain Tumor, Skin Cancer and Retinopathy Detection and Classification. Prince Mohammed bin Fahd University (**2020-2021**).
5. Ghazanfar Latif (Co-PI), 47,900 (SAR), Arabic Sign Language Recognition. Prince Mohammed bin Fahd University, Saudi Arabia (**2020-2021**).
6. Ghazanfar Latif (Co-PI), 20,500 (SAR), Evaluation of Machine Learning Techniques for Enhanced Image Understanding in Several Domains. Prince Mohammed bin Fahd University, Saudi Arabia (**2020-2021**).
7. Ghazanfar Latif (Co-PI), 56,750 (SAR), A Study on the Confused Handwritten Indian (Arabic) Numerical images. Deanship of Research, Prince Mohammed bin Fahd University, Saudi Arabia , (**2017-2018**).

RESEARCH PROJECT SAMPLES

1. **Post-Doctoral Project:** Mineral Grains Recognition and Classification (ML/AI)
2. **PhD Thesis:** Brain Tumor Classification using Deep Learning (**ML / AI**)
3. **MS Thesis:** Brain Tumor Classification and Segmentation from Brain MR Images (**ML / AI**)
4. **BS Project:** Brain Inspector - Detection and 3D Visualization of Brain Tumor from MRI (**AI**)
5. Plant Leaf Classification for Plant Diseases Detection (**AI / ML**)
6. Medical Images (CT/MRI, Ultrasound, Digital) Classification (**AI**)
7. Ultrasound Image Denoising and Despeckling (**Image Processing**)
8. Text Classification (Tweets/Arabic Emails, Hate Speech) (**NLP**)
9. Arrhythmia Detection using Ensemble based Decision Trees ***(Pattern Recognition)***
10. Arabic Handwritten Text/Numerals Recognition **(ML)**
11. Arabic Spam Email Classification **(ML)**
12. Arabic Signature Verification **(ML/ Image Processing)**
13. Arabic Sign Language Recognition **(ML)**

TEACHING/RESEARCH EXPERIENCE

University of Quebec Chicoutimi, Canada (May 15, 2021 - Present)

- Post-Doctoral Fellow/ Researcher – Department of Computer Science and Mathematics (DIM)

Conducting research and development on the industry funded project on recognition of mineral grains from images by exploiting Artificial Intelligence and Machine Learning methods. Main focus of project is to create new efficient solutions based on deep learning algorithms for the Minerals Recognition.

Prince Mohammad bin Fahd University (PMU), Al Khobar, Saudi Arabia

- Lecture / Lab Instructor – College of Computer Engineering and Sciences (2014 to 2016)
- Research Coordinator – Deanship of Research and Graduate Studies (2019 – Present)

PMU (established in 2006) is ranked 101-150 by QS World University Rankings Under 50 (best universities in the world which are under 50 years old). QS World University Rankings places PMU in

the top 751 to 800 universities around the world. PMU is also now ranked 44 in the 2021 QS Arab Region University Rankings.

Courses Instructed at PMU:

1. Computer Vision (Taught 2 times)
2. Artificial Intelligence (Taught 5 times)
3. Machine Learning (Taught 1 time)
4. Computer Graphics (Taught 6 times)
5. Computer Organization (Taught 9 times)
6. System Programming (Taught 7 times)
7. Web Server Management (Taught 1 time)
8. Business Intelligence (Taught 1 time)
9. Introduction to Cryptography (Taught 1 time)
10. Requirements Engineering (Taught 1 time)
11. Building Electronic Commerce (Taught 1 time)
12. Introduction to Computing (Taught 2 times)
13. Computer Science I (Taught 2 times)
14. Electronic Commerce Security (Taught 1 time)
15. Introduction to Information Technology (Taught 2 times)
16. Intermediate Programming for Information Systems (Taught 1 time)
17. Introduction to Computer Concepts and Applications (Taught 6 times)

Labs Conducted at PMU:

1. Embedded Systems Lab (Taught 10 times)
2. System Programming Lab (Taught 7 times)
3. Computer Science II Lab (Taught 8 times)
4. Cloud Computing Lab (Taught 1 time)
5. Programming Languages Lab (Taught 3 times)
6. Digital Signal Processing Lab (Taught 2 times)
7. Circuits-I Lab (Taught 4 times)
8. Digital Logic Design Lab (Taught 1 time)
9. Web Server Management Lab (Taught 1 time)
10. Web Programming Lab (Taught 1 time)
11. Data Structures Lab (Taught 2 times)
12. Computer Science I Lab (Taught 6 times)

Teacher Assistant Ships (NUCES – September 2008 to May 2010)

1. Software Engineering Spring 2010
2. Digital Image Processing Spring 2010
3. Linear Algebra Fall 2009
4. Software Engineering Spring 2009
5. Numerical Analysis Fall 2008

CISCO Certified Instructor (Eligible to teach following CISCO Courses)

1. IT Essentials: Hardware and Software
2. CCNA R&S: Introduction to Networks
3. CCNA R&S 6.0 Bridging
4. Networking Essentials

5. Introduction to the Internet of Everything
6. Introduction to IoT
7. Entrepreneurship
8. Introduction to Cybersecurity
9. Cybersecurity Essentials
10. Get Connected
11. Community: Smart Grid Essentials
12. Be Your Own Boss
13. Packet Tracer Know How 1:
14. Packet Tracer Know How 2:
15. Mobility Fundamentals
16. Partner: NDG Linux Essentials
17. Partner: NDG Linux I
18. Partner: NDG Linux II
19. Partner: CPA - Programming in C++
20. Partner: CLA - Programming in C
21. CCNA Discovery 1: Networking for Home and Small Business
22. CCNA Exploration 1: Network Fundamentals

DEGREE PLAN, COURSES AND LAB MANUALS DEVELOPMENT

Developed the following Degree Plans at PMU

1. Developed BS AI Degree Plan (2020)
2. Developed MS AI Degree Plan (2020)
3. Key Member to initiate PhD AI Degree Plan (2022)

Developed the Following Courses

1. Deep Learning (BS-AI)
2. Machine Learning (MS-AI)
3. Computer Vision and Pattern Recognition (MS-AI)
4. Computer Graphics (MS-AI)
5. Scripting Languages for AI (BS-AI)
6. System Programming (BS-IT)

Developed the following Labs

1. Lab Manual for Synthesis with Hardware Descriptive Languages
2. Lab Manual for System Programming
3. Lab Manual for Cloud Computing
4. Lab Manual for Embedded Systems
5. Lab Manual for Programming Languages
6. Lab Manual for Computer Science 1
7. Lab Manual for Computer Science 2

WORKSHOPS CONDUCTED

- Linux Administration (Ministry of Communication and Information Technology, KSA)
- System-On-Chip: Raspberry Pi (Prince Mohammad bin Fahd University, KSA)
- Java Programming for Advance Learners (Prince Mohammad bin Fahd University, KSA)
- Python Programming for IoT (Prince Mohammad bin Fahd University, KSA)

ACCREDITATION (ACHIEVEMENTS)

- Played major role as key member in achieving ABET accreditation for Information Technology department for the first time for full six years till 2016-2022.

- Played major role as key member in achieving ABET accreditation for Computer Engineering department for the first time for three years till 2019-2025.
- Played a key member role for accreditation from the National Commission for Academic Accreditation and Assessment (NCAAA).

ESTABLISHMENT OF RESARCH LABS at PMU (KEY MEMBER)

- Robotics Lab
- Embedded Lab
- Machine Learning Lab
- Senior Design Project Lab

INSTITUTIONAL SERVICE: COMMITTEES/ AFFILIATIONS at PMU

- Chair of International Student Competitions Committee
- Lead Member of BS and MS in AI programs design Committee
- Member of ABET Accreditation Committee
- Member of Robotics Lab Committee
- Member of Scientific Research Committee
- Member of CCES Labs Committee
- Member of AI Lab Committee
- Member of CCES Workshops Committee

PROFESSIONAL ASSOSIATIONS

- National Academy of Inventors (NAI) Honorary membership (2022-Till Date)
- IEEE Full Membership (2017 – 2021)
- ACM Honorary Membership (2011-2012)

PROFESSIONAL TRAININGS COMPLETED

1. Palo Alto Networks Cybersecurity Academy' (7 to 10 April, 2020)
2. Windows Server Administration, Dubai, UAE (11 to 19 March, 2016)
3. CISCO CCNA Training, PMU, Khobar, Saudi Arabia (18 to 21 January, 2016)

INTERNATIONAL CERTIFICATIONS COMPLETED

1. Cloud Infrastructure and Services (EMC) (April 23, 2016)
2. IOE (Internet of Everything - Cisco) (Feburary 19, 2016)
3. CCNA (Introduction to Networks - Cisco) (Feburary 25, 2016)
4. ITE (Information Technology Essentials - Cisco) (January 26, 2016)
5. Entrepreneurship (Cisco) (Feburary 19, 2016)
6. RackSpace Cloud Computing (RackSpace) (December 11, 2015)

INDUSTRY WORK EXPERIENCE

1. ***All4Cure - Health Information Technology Company in USA***

- **Designation:** Machine Learning Expert – Engineer (Offshore)
- **Duration:** June 2021-November 2022
- **Details:**

I was the lead member of the team for the drugs entity and other metrics extraction from the progress notes using the Natural Language Processing (NLP) and other machine learning techniques. The project was initially started for the Multiple Myeloma cancer patients progress notes which was extended to other types of Cancers. The system was able to visually captures entire cancer history by compiling medical records from all of your oncologists into a single comprehensive display. Input from other participants including patients, clinicians and researchers provide ideas that you and your doctor may wish to consider.

2. ***Medical Licensing Service, American Medical Logistics*** (http://physicianlicensing.com/)

- **Designation:** AML Cloud Based PLS Manger (Offshore)
- **Duration:** September 2011-April 2012
- **Details:**

I was one of the key members of the team who developed AML-PLS and I managed this whole System on Cloud. Atlas DS, American Medical Logistics has pioneered technology to securely store proprietary information, merge the information with applications for purposes of Licensing, Credentialing, Insurance & Medicaid/Medicare enrollment, and DEA registration, and have the information & processes available to clients 24 hours a day, 7 days a week.

3. ***MTBC® A Unique Healthcare IT Company***

One of the fastest growing companies in America (http://www.mtbc.com/)

- **Designation:** Cloud EHR Engineer
- **Duration:** August 2010 – September 2011
- **Responsibilities:**

Successfully designed, implemented, deployed and administered Cloud Based EHR/EMR Applications by using the AWS EC2, VPC, CloudWatch, S3, CloudFront, SES, SNS, IAM, VPC Services. I have deployed web based and Desktop Based Cloud EHR for one of the largest growing USA Company MTBC (http://www.mtbc.com/ehr-deployment.aspx) with the following details:

- Designing, developing, de-bugging and maintaining medical applications using C# and MS. SQL.
- Work with the team to write test plans for components and overall system.
- Testing and installation of the Company's software's into the client machines.
- Implement and test MTBC EHR by using C# and My SQL.
- Setup of Auto Snapshot, AMI creation and deletion for backups, Different Cloud Watch Alarms and auto Alarm Email Sending by SNS Service
- Setup of Auto Synchronization between the Live and Backup Servers
- Maintaining the Security of the Server according the USA HIPPA Compliance.
- Optimize the Cost and enhance the performance of EC2 Servers through different ways.

4. ***GENERATION NEXT (GENE)***

Worked as a developer in Generation Next (GENE) Software House Islamabad where I work on Vehicle Number Plate Recognition System which won Pakistan Software House Association (P@SHA) ICT Award 2010. (April 2, 2010 – June 12, 2010).

5. ***MINISTRY OF IT (Pakistan) & FAST-NU***

Worked as a Quality Assurance Officer for Outreach Scholarship Program supported by Ministry of IT and FAST National University of Computer and Emerging Sciences, in four Colleges of Dera Ghazi Khan Region (June 2007 – September 2007.

INFRASTRUCTURE / AI/ ML/ CLOUD / BIG DATA PROJECTS (OUTSOURCED)

(From September 2011 to 2022)

Number of Projects/Jobs Completed: **150+**
Total Earning: **150,000+ USD**
Number of work hours: **3000+**
Clients Review Score: **4.51/5 (www.upwork.com)**

#	Project Title	Project Duration	Country
1	Model Adjustment & Transfer Learning (TensorFlow)	Sep 10, 2021 - Nov 03, 2021	Germany
2	Machine Learning Engineer (Natural Language Processing for Medical Data)	Jun 18, 2021 – Oct 26, 2021	USA
3	LSTM Deep/Machine Learning Project Tone Up	Jul 23, 2021 – Aug 2, 2021	USA
4	Feature Extraction (NLP) using Python	Jun 24, 2021 - Jun 28, 2021	Greece
5	Deep Learning and Image Processing	Aug 23, 2021 - Oct 01, 2021	Japan
6	CNN, Tensorflow and Colab	Jul 4, 2021 – Jul 27, 2021	Australia
7	Design a Variational-Convolutional Autoencoder	Jun 15, 2021 – Jun 21, 2021	USA
8	MATLAB Expert for Streaming Data	Jun 27, 2021 – Jul 2, 2021	Saudi Arabia
9	Computer Vision Expert	Jun 12, 2021 - Jun 17, 2021	Canada
10	Build an API for Handwritten Characters Recognition	July 19, 2021 – Oct 8, 2021	USA
11	Valeriy Rasskazov / Amazon AWS Monitoring software	Sep 09, 2013 – Mar., 2014	Australia
12	Ambient BP / Incorporating 26 video files into website in the most efficient way.	Aug 23, 2013 - Mar, 2014	USA
13	Coresoft / Amazon AWS Systems Specialist	Aug 08, 2013 - Mar, 2014	Singapore
14	tekcp / Site Disaster recovery to the Cloud	Aug 08, 2013 - Mar, 2014	Canada
15	Josh Lindsteadt / Need Web Developer to build SaaS website	Jul 31, 2013 - Mar, 2014	USA
16	Katy Computer Specialists / PHP Developer	Jul 02, 2013 - Jan, 2014	USA
17	Portoformia / Cloud architecture designer	Jun 24, 2013 - Jan, 2014	USA
18	Speaktopic ApS / Design of architechure for Amazon Cloud website	Jun 19, 2013 – Jan, 2014	Denmark

19	Phoner / AWS SES Tech	Jun 14, 2013 - Dec, 2013	USA
20	DataZoo Media / Amazon Elastic Transcoder	May 15, 2013 - Dec, 2013	Canada
21	medical ent / Software Design and Development	Apr 12, 2013 – Dec, 2013	USA
22	MediaLeaf Technologies, Inc. / Need Help Writing Amazon S3 Bucket Access Policy	Aug 16, 2013 - Sep 10, 2013	Australia
23	Bawn Media Networks, Inc / Video Streaming Platform Development	Aug 02, 2013 - Sep 02, 2013	USA
24	Media Perfection / JW Player Expert	Aug 01, 2013 - Aug 04, 2013	USA
25	songphon phapatha / AWS Setup	May 01, 2013 - May 11, 2013	Thailand
26	SensibleS (1) / ec2	Feb 12, 2012 - Jan 25, 2013	USA
27	Techsided Solutions / Cloud Architect	Jan 21, 2012 - Jul 06, 2012	USA
28	JeFrench / Ezs3 Expert	Apr 17, 2012 - Jun 16, 2012	USA
29	GRR Systems, Inc. / EC2 Consultant	Mar 26, 2012 - May 03, 2012	Canada
30	Local Advertising 411 / Amazon S3 content	Jan 20, 2012 - Apr 24, 2012	USA
31	GOCHIPI / Expert	Oct 12, 2011 - Apr 13, 2012	USA
32	N/A / AWS designer	Oct 25, 2011 - Feb 20, 2012	USA
33	Helpmewithdotnet / ASP.NET Web Developer	Oct 29, 2011 - Feb 17, 2012	Canada
34	hsouza / Cloud Computing Architect	Oct 22, 2011 - Feb 13, 2012	USA
35	Diasol AB / Amazon EC2	Nov 03, 2011 - Feb 07, 2012	Sweden
36	tg2000 / Video pages	Feb 03, 2012 - Feb 06, 2012	Cyprus
37	ADIL / Amazon ec2 expert	Jan 24, 2012 - Jan 26, 2012	Saudi Arabia
38	Robert G. / Amazon API Developer	Dec 19, 2011 - Dec 28, 2011	Canada
39	Bonnell Street Enterprises, Inc. / AWS Guru	Nov 14, 2011 - Dec 05, 2011	USA
40	New World Media Irl / AWS Module 3&4	Oct 11, 2011 - Nov 29, 2011	Ireland
41	RevUp Render, Inc. / EC2 Expert	Oct 27, 2011 - Nov 26, 2011	USA
42	GSG Networks Pte. Ltd. › movies / Flash Video Player	Nov 18, 2011 - Nov 22, 2011	Singapore
43	Push 3 Marketing / amazon S3 and Cloudfront configuration	Nov 05, 2011 - Nov 06, 2011	USA
44	Helpmewithdotnet / AWS EC2 VPC Configuration Assistance	Oct 20, 2011 - Oct 27, 2011	Canada
45	internetdata / Senior Amazon AWS / ECS Server Administrator	Oct 12, 2011 - Oct 27, 2011	USA
46	internetdata / server work	Oct 10, 2011 - Oct 11, 2011	USA
47	New World Media Irl / AWS	Oct 04, 2011 - Oct 10, 2011	Ireland
48	ZoomRadar / Image Manipulation Specialist	Aug 18, 2011 - Oct 04, 2011	USA
49	New World Media Irl / AWS Scripting	Sep 16, 2011 - Oct 03, 2011	Ireland
50	Filmhauer / Expert: Migrate from Shared Web to Amazon EC2	Aug 31, 2011 - Sep 14, 2011	Spain

REFERENCES

- Jaafar Alghazo, Ph.D. (Southern Illinois University Carbondale, USA)
  Associate Professor (Lt. Col.), Electrical and Computer Engineering Department,
  Virginia Military Institute, Lexington, VA, USA
  alghazojm@vmi.edu

- Ghassen Ben Brahim, Ph.D. (Western Michigan University, USA)
  Dean – College of Computer Engineering and Sciences, Prince Mohammad bin Fahd University,
  Khobar, KSA (Former Systems Analysts at Boeing Integrated Defense Systems)
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- D.N.F. Awang Iskandar Ph.D. (Royal Melbourne Institute of Technology, Australia)
  Associate Professor, Faculty of Computer Science and Information Technology,
  University of Malaysia Sarawak, Malaysia
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- Irfan Mehmood, Ph.D. (Sejong University, Seoul, South Korea)
  Faculty of Engineering and Informatics,
  University of Bradford, London, UK
  i.mehmood4@bradford.ac.uk

- Muhammad Omer, Ph.D. (University of Calgary, Canada)
  R&D Engineer at Circle Cardiovascular Imaging, Calgary, Canada
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