DR SARMAD AL-GAWWAM

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Electronic and Electrical Engineering PhD graduate from the University of Sheffield. Skilled in building machine learning pipelines. Specifically, experienced in computer vision for mental disorder analysis and medical images. My machine learning expertise includes developing deep learning models, time-series data and medical images.

RESEARCH INTERESTS

Machine learning (Linear/Logistic regression, SVM, Decision trees, Random forest, Boosting, Bagging), deep learning (TensorFlow, Keras, convolutional neural networks, time series data, biomedical image processing, Semantic segmentation, new deep learning architectures).

SKILLS

- Using statistical analysis and visualisations of data to enable early decision-making.
- Handling large biomedical datasets by implementing innovative solutions.
- Experience with semantic segmentation research on biomedical image datasets.
- Using state-of-the-art deep learning architecture to develop solutions for complex biomedical data.
- Using Python-based software packages to explore datasets of medical images and prepare it for machine learning pipelines.
- Fine-tune an existing CNN architecture for transfer learning with medical imaging applications
- image pre-processing and augmentation techniques
- **Interpersonal skills**: Coached and collaborated with other scientists, outlining objectives, methodology, and conclusions.
- **Management and organization**: Managed several projects and collaborations in parallel, planned work to achieve goals and targets on time, set realistic objectives and developed creative solutions to problems.

EDUCATION

NOV 2020

PHD IN ELECTRONIC & EECTRICAL ENGINEERING, UNIVERSITY OF SHEFFIELD.

• PhD Thesis "Automatic Diagnosis of Mental Disorders", University of Sheffield supervised by Dr Mohammed Benaissa. My thesis investigates novel automatic methods for mental disorders diagnosis. I have successfully developed machine learning techniques using visual features to diagnose Depression, Bipolar and Memory disorders. During my research I have developed the following skills:

- Researched computer vision and deep learning networks to investigate the role of facial appearance in identifying mental illness.
- Handled huge image datasets using transfer learning techniques and multi-scale feature extraction.
- Performed statistical analysis on mental disorder dataset to analyse features extracted from eyes, head motion and facial dynamics.
- Developed a deep neural network architecture to extract the complex temporal trajectories of physiological behaviours.
- Achieved state-of-the-art results on Audio/Video Emotion Challenge 2018 -AVEC2018 and AVEC2014.
- Tutored first-year students during course related python and C programming.

NOV 2009

MASTER'S DEGREE IN COMPUTER NETWORKS, UNIVERSITY OF PORTSMOUTH

Computer network administration and management, school of computing. Reading on client server network architecture, communication security, systems administration, IP communications, network configuration, network management &

design, data networking and Java applications for the modern mobile.

JUL 2006

BACHELOR'S DEGREE IN COMPUTER ENGINEERING, UNIVERSITY OF TECHNOLOGY

Computer engineering and information technology, at the school of electronic engineering. Reading on networking, programming (C, C++, Java and Assembly), information systems, image processing, data communications, computer architecture, operating systems, software engineering and microprocessors.

EXPERIENCE

2013 – 2015

WORKFORCE MANAGEMENT DISPATCHER, ERICSSON, ERBIL

- Secured a high quality of service with timely delivery to ensure KPI's committed to the Customer.
- Analysed escalated RBS field problems and help Field Staff to solve and give support to KOREK NOC team if required restoring faults in the KOREK network.
- Played a proactive part in the operation of the field management organization.
- Prepared weekly reports and statistics on the individual performance of field staff.
- Supplied information to the field operation manager to enable him to give feedback to field staff on their individual performance.
- Developed new reports and suggested process improvements to ensure the accuracy of critical information.
- Identified computer hardware and network system issues, performing troubleshooting techniques for remediation.

2013 – 2015

LECTURER, SORAN UNIVERSITY, ERBIL.

- Assisted in the development of learning materials, preparing schemes of work and maintaining records to monitor student progress, achievement and attendance
- Created semester outlines and instructional plans for each class session to comply with stated course objectives.
- Developed lecture plans for Web development (2nd year course), Operating systems (4th year course).

2009 – 2013

LECTURER, DIJLAH UNIVERSITY COLLEGE, ERBIL.

- Delivered engaging curriculum through diverse methods, including classroom instruction, computer lab activities and online learning systems.
- Developed lecture plans for: C, C++ (2nd year course) and computer architecture (3rd year course).

2006 –2008

IT ENGINEER, KOREK TELECOM

- Resolved issues related to operational components for LAN, WAN and voice systems.
- Installed, configured, tested and maintained operating systems, application software and system management tools.
- Checked the available hardware and repair equipment for telecom offices and report the required supplies.
- Planned information security, anti-virus strategies and helping staff to use anti-virus software.
- Fixed network connection problems, monitored network usage and reported required upgrades to ensure productivity.
- Installed drivers and other software on desktops, Printer\scanners, laptops and assured only authentic/genuine software is installed.
- Managed backup systems for critical data and make sure that backup is stored on local and cloud-based servers.

TRAINING

CCNA, Ericsson WCDMA System Overview, WCDMA RBS 6101 Field Maintenance,
WCDMA RAN W15 Node B Commissioning.