Eid Alkhaldi

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(Last updated February 26, 2020.)

Basic Info

: eid.alkhaldi@gmail.com : github.com/alkhaldieid

- Doctoral student in Electrical Engineering at the University of Toledo WWW, focusing mostly on the diagnostic applications of Deep Learning in medical imaging.
- Maintainer and developer of a Deep Learning-based Cancer Classification system at https://github.com/alkhaldieid/iciar WWW.

Institutions

2017–present | **Ph.D. in Engineering**
University of Toledo, Toledo, Ohio, USA Focusing on medical image processing, Artificial Inteligence and Deep Learning. Advisor: Dr. Ezzatollah Salari.

2015–2017 | **M.S. in Electrical Engineering**
University of Toledo, Toledo, Ohio, USA

2014 | **B.S. in Electrical Engineering**
Oklahoma State University, College of Engineering, Architecture and Technology Stillwater, Oklahoma, USA

Presentations

Soon | **"GA Optimization of Histology Image Classification Ensembles"**
20th Annual IEEE International Conference ON Electro Information Technology (eit2020)

Languages

Human | Arabic, English

Machine | Python, Matlab/GNU Octave, bash/shell, C, C++ ; markup languages including LaTeX/XeTeX, R Markdown, basic HTML.

Deep Learning | PyTorch, TensorFlow, Keras, Fastai and Sikit-Learn

Other Tools | OpenCV, MATLAB, DEAP (Genetic optimization framamework) , Linux, AWS, GCC

Public Code and Scripts

In Progress | **Genetic Algorithm Ensemble Optimization**
A Genetic Algorithm based optimization framework that automatically tune ensembles hyperparameters

In Progress | **Quantim Computing based Transfer Learning**
A Quantum based Learning Rate Scheduler for transfer learning models

2017–Now | **Histology Image Classification models for ICIAR**
Various pretrained models for breast cancer detection in histology images. Achieved 88% accuracy on the ICIAR WWW dataset

Publications

In Progress | **Deep Learning Approaches to Histology Image Analysis for Automated Medical Diagnosis**
Dissertation, University of Toledo Committee: Dr. Ezzatollah Salari, Dr. Kim, Junghwan,, Eddie Y. Chou, Ph.D., P.E., Dr. Richard G. Molyet.

Submitted | **"GA Optimization of Histology Image Classification Ensembles"**
20th Annual IEEE International Conference ON Electro Information Technology (eit2020)

2019 | **Alkhaldi, E. & Salari, E. Genetically Optimized Heterogeneous Ensemble for Histological Image Classification.**
International Journal of Science and Engineering Investigations (IJSEI), 8(95), 113-118. PDF
http://www.ijsei.com/papers/ijsei-89519-16.pdf

Licenses & Certifications

2018 | **Improving Deep Neural Networks: Hyperparameter Tuning, Regularization And Optimization** WWW
Coursera, issued March 2018

2018 | **Neural Networks and Deep Learning** WWW
Coursera, issued February 2018

Research Interests

- Digital Image Processing, Signal Processing and Communication Systems
- Applications of Artificial Intelligence in Medical images, healthcare systems, Cybersecurity and Finance
- Machine Learning, Deep Learning, Data Science and Big Data
- Hyperparameter Tuning, Non-convex Optimiation, Numerical Methods and Biologically Inspired Computing

Engineering Projects

- UC Davis NATCAR Design Contest (Oklahoma State University 2014 team).
  - Responsibilities: ...
    - Microprocessor and interface with other blocks of the system
    - Design the power circuit for the whole system
    - Choosing the best value Battery that meet the project specs
    - The servo control software

Volunteering and Extracurricular activities

- MSA vice president (2011-2012)
- SSA member (2007 – 2012)

References

- References are available upon your request.
- Email me and I'll refer you to my mentors based on your interests.