Eid Alkhaldi, Ph.D.

Basic Info

📧 : eid.alkhaldi@gmail.com
in : https://www.linkedin.com/in/eid-alkhaldi-38a10212a/

🌐 : github.com/alkhaldieid
☎ : 00966508336583

- A results-driven and accomplished Electrical Engineer with a Ph.D. and a strong publication record in esteemed journals such as IEEE Access. Demonstrating over 8 years of dedicated research experience, I have established expertise in Deep Learning, Computer Vision, Bio-inspired optimization methods, and Machine Learning. As evidenced by my four published journal papers as a first author, I exhibit a commitment to scholarly excellence and innovation in academic pursuits. Seeking to leverage my academic background and research proficiency, I am eager to transition into a role as a University Assistant Professor. My extensive experience in leading-edge technologies and interdisciplinary research equips me to contribute effectively to both teaching and research endeavors within the academic community. Driven by a passion for advancing knowledge and fostering intellectual curiosity, I am poised to inspire and mentor the next generation of scholars while furthering the boundaries of scientific inquiry. With a proven track record of collaborative research projects and a dedication to academic rigor, I am prepared to make meaningful contributions to the academic institution and its scholarly community.

Institutions

2017--2022	**Ph.D. in Engineering** *University of Toledo, Toledo, Ohio, USA* Focusing on medical image processing, Artificial Inteligence and Deep Learning. Advisor: Dr. Ezzatollah Salari.

Dissertation Title: ***Ensemble Optimization for Histological Image Classification***

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

Publications

2022	**Ensemble Optimization for Histological Image Classification** *Dissertation, University of Toledo* Committee: Dr. Ezzatollah Salari, Dr. Kim, Junghwan,, Eddie Y. Chou, Ph.D., P.E., Dr. Richard G. Molyet.
Dec 2022	**E. Alkhaldi and E. Salari, ``Ensemble Optimization for Invasive Ductal Carcinoma (IDC) Classification Using Differential Cartesian Genetic Programming,'' in IEEE Access, vol. 10, pp. 128790-128799, 2022, doi: 10.1109/ACCESS.2022.3228176.** *IEEE Access* PDF *https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=arnumber=9978635*
2022	**Alkhaldi, E. & Salari, E. ``Ensemble Optimization Using Clonal Selection Algorithm for Breast Cancer Histology Image Classification''** *International Journal of Computer Science and Technology (IJCST) Vol. 13, Issue 4, Oct - Dec 2022* PDF *https://www.ijcst.com/vol12/issue1/3-eid-alkhaldi.pdf*
2021	**Alkhaldi, E. & Salari, E. ``Adaptive PSO-Based Ensemble Optimization for Histology Image Classification''** *International Journal of Computer Science and Technology (IJCST), Vol 12, Issue 1, Version Jan-March 2021.* PDF *https://www.ijcst.com/vol12/issue1/3-eid-alkhaldi.pdf*

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*

Presentations

Dec 2022	**PhD Dissertation Defense**
	``*Ensemble Optimization for Histological Image Classification''*
April 2022	**PhD Proposal Defense**
	``*Ensemble Optimization for Histological Image Classification''*
Oct 2021	**Optimized PhD Workflow Tutorial for UT grad students**
	``*LaTex, BibTex, Mendeley and Emacs workflow for writing PhD dissertations''*

Licenses & Certifications

2024	**Generative AI with Large Language Models**
	WWW
	Coursera, issued Jan 2024
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

Languages

Human	Arabic, English
Machine	Python, Matlab/GNU Octave, bash/shell, C, C++ , markup languages including LaTeX / XꟻTeX, R Markdown, basic HTML.
Deep Learning	PyTorch, TensorFlow, Keras, Fastai and Sikit-Learn
Other Tools	**OpenCV, MATLAB, DEAP (Genetic optimization framamework) , Linux** *Excel, MS office*

Research Interests

- Artificial Intelligence and STEM education

- 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

Public Code and Scripts

PUBLISHED | **Histology Image Classification models for ICIAR and IDC** ⬤
Various pretrained models for breast cancer detection in histology images. Achieved 88% accuracy on the ICIAR WWW *dataset*

PUBLISHED | **PhD Emacs** ⬤
Rich-featured and minimal Emacs configuration ideal for researchers and grad students

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

- **Dr. Ezzatollah Salari**
  EECS Department
  The University of Toledo
  Toledo,OH 43606
  Tel: (419) 530-6002
  Office: NI 2037
  E-mail: Ezzatollah.Salari@utoledo.edu

- **EDDIE CHOU, PhD, PE**
  Professor of Civil Engineering and
  Director, Transportation Systems Research Laboratory
  University of Toledo, Toledo, Ohio 43606
  Phone: 419-530-8123
  E-mail: eddie.chou@utoledo.edu

- **WEIQING SUN, Ph.D.**
  Program Director of Master's Progams in Cyber Security
  Computer Science and Engineering Technology
  Engineering Technology Department
  Office: NE 1627
  Phone: (419)530-3273
  Fax: (419)530-3068
  Email: Weiqing.Sun@utoledo.edu