Ramzi Zouari

Curriculum Vitae

Phd in Engineering of Informatic systems
Member of SM@RTS laboratory, Digital Center of Research, Sfax, Tunisia
Member of Djagora Academy, Technopark Sfax, Tunisia

PERSONAL DETAILS

Birth	April 01, 1985
Address	3067 Sakiet eddaeir, Sfax,Tunisia
Phone	(+216) 95016681
State	Married, 1 girl
Mail	`ramzi.zouari@enetcom.usf.tn`
ORCID	0000-0002-2634-5280

DIPLOMAS

Doctorate in Engineering of Informatic Systems 2015-2020
National School of Engineering of Sfax, Tunisia

Contribution to online handwriting recognition systems based on supervised and deep reinforcement learning approaches

Master 2 in New Technologies in Dedicated Informatics Systems 2010-2012
National School of Engineering of Sfax, Tunisia

Towards offline handwriting verification system based on fractal and multi fractal analysis

Master 1 in Informatic 2003-2007
Faculty of Sciences of Sfax, Tunisia

Bachelor 2003
Habib Maazoun secondary school, Sfax, Tunisia

TEACHING EXPERIENCE

Computer Science Teacher 2007-present
Faculty of Law and Political Sciences of Sousse, Tunisia., Full-time

Contractual Assistant 2020-2023
National School of Electronics and Telecommunications of Sfax, Tunisia

Contractual Assistant 2022-2023
High Private School of Engineering and Applied Technologies of Sousse, Tunisia

TEACHING COURSES

Machine learning (Enet'Com, 2023)

linear models, Lasso and Ridge Regression, KNN, SVM, DT, RF

Geometric Deep learning (Enet'Com, 2023)
Graph Neural Networks, Nodes, Edges, similarity, clustering

Linux (ESPITA, 2023)
Shell, processes, users managements, user permissions, redirections

Operation systems fundamentals (ESPITA, 2023)
Processes, process scheduling, virtual memory, pagination, file systems, process synchronisation

Multimedia Fundamentals (ESPITA, 2023)
image, audio, video, coding, compression algorithms

Deep learning (Enet'Com, 2022)
Perceptron, MLP, CNN, transfer learning, fine-tuning

Data Wrangling (Enet'Com, 2022)
EDA, Data cleaning, structuring, enrichment, validation,visualization

Introduction to Artificial Intelligence (Enet'Com, 2021)
Agent and environment, search problems (DFS, A, dijkstra), Reinforcement learning*

Advanced Databases (Enet'Com, 2021)
PL-SQL, procedures, functions, cursors, sequences, triggers

Mini Projects (Enet'Com, 2021)
Arduino, Esp32, DHT11, AppInventor

RESEARCH INTERESTS

- Computer vision, Large Language Models
- Adaptation techniques of Large Language Models (LoRa)
- Handwriting movement modeling, online trajectory modeling, handwriting recognition, signature verification
- E-health, smart agriculture
- Deep sensor fusion, adversarial attacks for autonomous driving

SUPERVISION PROJECTS

Doctorate

- *Breast cancer MRI image caption based on Large Language Models*

Master 2 degree

- *Temporal residual networks for online handwriting recognition*
- *Deep learning for facial emotion recognition*

- *Online signature verification based temporal convolution networks*
- *Object detection for autonomous driving*

Engineering degree

- *Recommendation restaurants based on customers reviews*
- *Text-to-speech translation with unlimited vocabulary context*

Bachelor degree

- *Smart irrigation system Watero*
- *Relalization and conception of smart health watch iXir*

MANUSCRIPT REVIEWER

International Conference on Electrical, Computer, Communications and Mechatronics Engineering (ICECCME, 2021)

- *Highly Accurate Recognition of Fingerprint Using Convolutional Neural Network*
- *The use of Convolutional Neural Network and StarRGB technique for gait movements recognition in remote physiotherapy*

International Conference on Communications, Control Systems and Signal Processing (CCSSP, 2020)

- *Does the Learning Principle Help Us Improve Hand-Crafted Finger-Knuckle-Print Features*

SCIENTIFIC PUBLICATIONS

2023

Tawfik Ezat, Ramzi Zouari, and Mouna Baklouti. "Breast Cancer Detection Based DenseNet with Attention Model in Mammogram Images." International Conference on Model and Data Engineering. Cham: Springer Nature Switzerland, 2023.

Ramzi ZOUARI, Dalila OTHMEN, Houcine BOUBAKER et al. "Temporal residual network based multi-head attention model for arabic handwriting recognition". In : Int. Arab J. Inf. Technol. 20.3A (2023), p. 469-476. DOI : 10.34028/iajit/20/3A/4. URL : https://doi.org/10.34028/iajit/20/3A/4.

Aicha NOUISSER, Ramzi ZOUARI et Monji KHERALLAH. "Deep learning based mobilenet and multi-head attention model for facial expression recognition". In : Int. Arab J. Inf. Technol. 20.3A (2023), p. 485-491. DOI : 10.34028/iajit/20/3A/6. URL : https://doi.org/10.34028/iajit/20/3A/6.

2022

Dalila OTHMEN, Ramzi ZOUARI, Houcine BOUBAKER et al. "Temporal Convolution based Skip Connections for Online Arabic Handwriting Recognition". In : 2022 International Arab Conference on Information Technology (ACIT). IEEE. 2022, p. 1-5

Aicha NOUISSER, Ramzi ZOUARI et Monji KHERALLAH. “Enhanced MobileNet and transfer learning for facial emotion recognition”. In : 2022 International Arab Conference on Information Technology (ACIT). IEEE. 2022, p. 1-5

Aicha KORICHI, Sihem SLATNIA, Najiba TAGOUGUI, Ramzi ZOUARI et al. “Recognizing Arabic Handwritten Literal Amount Using Convolutional Neural Networks”. In : Artificial Intelligence and Its Applications : Proceeding of the 2nd International Conference on Artificial Intelligence and Its Applications (2021). Springer. 2022, p. 153-165.

2021
Omar CHEIKHROUHOU, Redowan MAHMUD, Ramzi ZOUARI et al. “One-dimensional CNN approach for ECG arrhythmia analysis in fog-cloud environments”. In : IEEE Access 9 (2021), p. 103513-103523.

2020
Ramzi ZOUARI, Houcine BOUBAKER et Monji KHERALLAH. “Towards Online Handwriting Recognition System Based on Reinforcement Learning Theory”. In : Neural Information Processing : 27th International Conference, ICONIP 2020, Bangkok, Thailand, November 18–22, 2020, Proceedings, Part IV 27. Springer. 2020, p. 562-570

2019
Ramzi ZOUARI, Houcine BOUBAKER et Monji KHERALLAH. “Multi-language online handwriting recognition based on beta-elliptic model and hybrid TDNN-SVM classifier”. In : Multimedia Tools and Applications 78 (2019), p. 12103-12123

2018
Ramzi ZOUARI, Houcine BOUBAKER et Monji KHERALLAH. “RNN-LSTM Based Beta-Elliptic Model for Online Handwriting Script Identification”. In : INTERNATIONAL ARAB JOURNAL OF INFORMATION TECHNOLOGY 15.3 A (2018), p. 532-539

2017
Ramzi ZOUARI, Houcine BOUBAKER et Monji KHERALLAH. “Two staged fuzzy SVM algorithm and beta-elliptic model for online arabic handwriting recognition”. In : Artificial Neural Networks and Machine Learning–ICANN 2017 : 26th International Conference on Artificial Neural Networks, Alghero, Italy, September 11-14, 2017, Proceedings, Part II 26. Springer. 2017, p. 450-458.

Ramzi ZOUARI, Houcine BOUBAKER et Monji KHERALLAH. “Hybrid TDNN-SVM algorithm for online Arabic handwriting recognition”. In : Proceedings of the 16th International Conference on Hybrid Intelligent Systems (HIS 2016). Springer. 2017, p. 113-123

Ramzi ZOUARI, Houcine BOUBAKER et Monji KHERALLAH. “A time delay neural network for online arabic handwriting recognition”. In : Intelligent Systems Design and Applications : 16th International Conference on Intelligent Systems Design and Applications (ISDA 2016) held in Porto, Portugal, December 16-18, 2016. Springer. 2017, p. 1005-1014

2016
Mohamed ELLEUCH, Ramzi ZOUARI et Monji KHERALLAH. “Feature extractor based deep method to enhance online arabic handwritten recognition system”. In : Artificial

Neural Networks and Machine Learning–ICANN 2016 : 25th International Conference on Artificial Neural Networks, Barcelona, Spain, September 6-9, 2016, Proceedings, Part II 25. Springer. 2016, p. 136-144.

2015
Raouia MOKNI, Ramzi ZOUARI et Monji KHERALLAH. "Pre-processing and extraction of the ROIs steps for palmprints recognition system". In : 2015 15th International Conference on Intelligent Systems Design and Applications (ISDA). IEEE. 2015, p. 380-385

2014
Ramzi ZOUARI, Raouia MOKNI et Monji KHERALLAH. "Identification and verification system of offline handwritten signature using fractal approach". In : International Image Processing, Applications and Systems Conference. IEEE. 2014, p. 1-4.

CERTIFICATIONS

Generative AI with Diffusion Models (Nvidia)
Date: May 31, 2024

Fundamentals of Deep Learning (Nvidia)
Date: May 29, 2024

Azure Data Fundamentals (DP-900)
verify.certiport.com: vYuF-Dw8X
Date: February 08, 2024

Azure AI Fundamentals (AI-900)
verify.certiport.com: wd3Ko-48Dm
Date: February 01, 2024

Azure Fundamentals (AZ-900)
verify.certiport.com: wUnTK-H9uQ
Date: January 24, 2024

ANIMATION OF TRAINING COURSES

Medical Image captions using Generative models (Djagora Academy)
10 May 2024

Deep learning applications in HealthTech (Djagora Academy)
14-15 July 2023

Medical image segmentation using deep learning models (ESPITA)
05 March 2023

LANGUAGES

Arabic (mother tongue)
French (fluent)
English (fluent)