

INFORMAZIONI PERSONALI

Zahra Ziran

ESPERIENZA PROFESSIONALE

September 2023 -- Present

Research Fellow

Sapienza University of Rome (DIAEE)  
Machine learning methods and techniques for intelligent sensorized environments also through deep learning  
[ING-INF/05](#)

July 2020 – August 2023

Research Fellow

Sapienza University of Rome  
In the context of the NOTAE Project, working on the graphic symbols recognition in documentary records with Machine Learning/Reinforcement learning, as a historical phenomenon from Late Antiquity to early medieval Europe.  
[ING-INF/05](#)

December 2019 - April 2020

Research Fellow

Università degli Studi di Firenze  
Pre-operational development of indexes for the monitoring of drawing applicable to global scale with Python and statistical solution.  
[ING-INF/05](#)

ISTRUZIONE E FORMAZIONE

November 2016 - February 2020

PhD in Computer Engineering

Università degli Studi di Firenze  
Deep learning-based object detection models applied to document images

February 2011 – October 2012

MSc in Information Technology Engineering

University of Guilan, Rasht, Iran  
Forecasting Undesirable Weather Conditions Using Data Mining Technique

September 2004 – December 2008

BSc in Computer Engineering (Hardware Branch)

Azad University (Qazvin Branch), Qazvin, Iran  
Control of a stepper motor's direction of rotation using AVR Microcontroller

COMPETENZE PERSONALI

Lingua madre Persian

Altre lingue

	COMPRESIONE		PARLATO		PRODUZIONE SCRITTA
	Ascolto	Lettura	Interazione	Produzione orale	
English	B2	B2	B2	B2	B2

Patente di guida B

ULTERIORI INFORMAZIONI

## Pubblicazioni

- Z. Ziran, F. Leotta, M. Mecella, A. Ghignoli. “Image Processing and Semantic Technologies in Digital Humanities. The NOTAE Experience”, *ARCHIV FÜR DIPLOMATIK*, 2025:113–133.
- Baker, O., Z. Ziran, M. Mecella, et al. “Predictive Modeling for Pandemic Forecasting: A COVID-19 Study”, *IJERPH*, 2025. [IF: 4.614, Q2]
- Z. Ziran, M. Mecella, S. Marinai. “Enhancing Historical Documents by Integrating Deep Learning and Image Processing”, *IJDL*, Accepted. [IF: 1.7, Q2]
- Piras, G., Muzi, F., Ziran, Z. “Energy and Economic Assessment of Building Renovations”, *Applied Sciences*, Accepted. [IF: 2.5, Q2]
- Piras, G., Muzi, F., Ziran, Z. “AI and ML for Renewable Energy Communities”, *Energies*, 2024. [IF: 3.2, Q1]
- Z. Ziran et al. “Text Alignment in Early Printed Books Using DL”, *Pattern Recognition Letters*, 2020. [IF: 3.3, Q1]
- Noor Ali, Z. Ziran et al. “Visual LLMs for Floorplan Graphics”, *DocEng 2025*, Nottingham, UK. [CORE B]
- Z. Ziran et al. “Energy Consumption Prediction”, *IE 2025*, Darmstadt, Germany. [CORE B]
- Z. Ziran et al. “Enhancing Historical Documents”, *IRCDL 2025*, Udine, Italy. [🏆 Honorable Mention]
- Z. Ziran et al. “Sustainable Energy Prediction”, *IE 2024*, Las Palmas. [CORE B]
- E. Bernasconi et al., Z. Ziran. “NOTAE: Graphic Symbols in History”, *RCIS Workshops 2022*, Barcelona. [CORE B]
- Z. Ziran et al. “Accurate Graphic Symbol Detection”, *ICDAR 2021*, Lausanne. [CORE A\*]
- E. Bernasconi et al., Z. Ziran. “NOTAE Knowledge Graph Interface”, *IRCDL 2021*, Padova.
- S. Marinai, Z. Ziran et al. “Concordances Indexing”, *IRCDL 2020*, Bari.
- J. Ravagli, Z. Ziran, et al. “Text Recognition in Floorplans”, *GREC 2019*, Sydney. [CORE A\*]
- Z. Ziran, S. Marinai. “Object Detection in Floorplans”, *ANNPR 2018*, Siena.

- N.Sietis, S.Veneruso,Z.Ziran."NOTAE: NOT A writtEn word but graphic symbols.". 16th RCIS Workshops, Barcelona, Spain, May 17-20, 2022
- Z.Ziran, E.Bernasconi, A.Ghignoli, F.Leotta, M.Mecella. "Accurate Graphic Symbol Detection in Ancient Document Digital Reproductions". Document Analysis and Recognition, ICDAR 2021 Workshops, Lausanne, Switzerland, September 5-10, 2021
  - E.Bernasconi, M.Boccuzzi, T.Catarci, M.Ceriani, A.Ghignoli, F.Leotta, M.Mecella, A. Monte, N.Sietis, S.Veneruso, Z.Ziran. "Exploring the Historical Context of Graphic Symbols: the NOTAE Knowledge Graph and its Visual Interface", Italian Research Conference on Digital Libraries (IRCDL,Padova, Italy, February 18-19, 2021)
  - Z.Ziran, X.Pic, S.Undri Innocenti, D.Mugnai, S.Marinai. "Text alignment in early printed books combining deep learning and dynamic programming", Elsevier, Pattern Recognition Letters,Volume 133, May 2020, Pages 109-115
  - Simone Marinai, Samuele Capobianco, Zahra Ziran, Andrea Giuntini and Pierluigi Mansueto. "Recognition of Concordances for Indexing in Digital Libraries", Italian Research Conference on Digital Libraries, Digital Libraries: The Era of Big Data and Data Science pp 135–147 (IRCDL, Bari, Italy January 30-31 2020)
  - J.Ravagli, Z.Ziran, S.Marinai. "Text Recognition and Classification in Floor plan Images", 13th IAPR International Workshop on Graphics Recognition, Sydney, Australia, September 22-25, 2019 2018 Z.Ziran, S. Marinai, "Object Detection in Floor Plan Images", In book: Artificial Neural Networks in Pattern Recognition, (ANNPR 2018), pp. 383-394 , Siena, Italy, September 19-21, 2018
  - Z. Ziran, M. Mahdavi., "Application of data mining on ECRM to examine the effective parameters and its usefulness in B2C E-commerce," in the Proc. of 7th Iran Data Mining Conference (IDMC 2014), Tehran, Iran, December 2-4, 2014
  - S. Mosammami, Z. Ziran, M.Moradi, A. Shahbahrani., "E-Consumer Behavior Verification in Business to Consumer E-Commerce using Data Mining Technique," in the 1st International Conference on New Directions in Business, Management, Finance and Economics, Famagusta, North Cyprus, September 12-14, 2013