



HASNAE ZEROUAOUI

Microsoft Ph.D. Fellow – Ph.D. Student – Software Engineer

✉ zerouaoui2@gmail.com – hasnae.zerouaoui@um6p.ma

☎ +212618466857

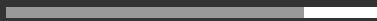
🏠 Base militaire, 43150 Ben guerir

♀ Female

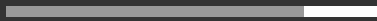
🌐 [linkedin.com/in/hasnae-](https://www.linkedin.com/in/hasnae-)

SKILLS

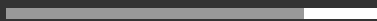
Machine learning



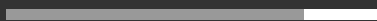
Deep learning



Computer Vision



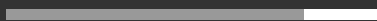
Python



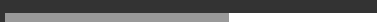
Project Management



Teaching and supervision



Android



COBOL



MAINFRAME

MVS

PL/SQL

Mobile Application

Web Application

Software Engineering

LANGUAGES

Arabic



English



EDUCATION

Microsoft Ph.D. Fellow

2022 – 2023

Microsoft

Among the 36 students selected from around the world from various prestigious universities such as MIT, Stanford, Carnegie Mellon, Pennsylvania, Oxford and more. And among the 3 selected from Africa.

<https://www.microsoft.com/en-us/research/academic-program/phd-fellowship/2022-recipient/>

Ph.D. Student – Deep Ensemble

May 2019 – May 2023

learning; methods for breast cancer digital pathological diagnosis

Mohammed VI Polytechnic University, Benguerir

State Engineering Diploma in Computer Engineering, option Software Engineering

Sep 2011 – Jun 2016

National School of Applied Sciences, Kenitra, Kenitra

Among the TOP 3 Majors

Final year grade : 16.51

Bachelor's Degree in Physical Science

Jun 2011

Lycée scientifique, Rabat

High distinction

Mathematics Grade in National Exam : 19.75

EMPLOYMENT

Lab Assistant Professor

Jan 2023 – Jan 2023

Institute of Science, Technology and Innovation – IST&I – UM6P

Lab Professor assistant for the module : Machine Learning for Master Executive student (OCP)

Lab Professor assistant for the module : Machine Learning Bachelor Student

Supervisor / Lab Assistant Professor

Jan 2022 – Jul 2022

Institute of Science, Technology and Innovation – IST&I – UM6P

- Lab Professor assistant for the module : Machine Learning for Bachelor Student

HOBBIES

- Reading
- Cycling
- Swimming

- Lab Professor assistant for the module : Machine Learning for Master Student
- Lab Professor assistant for the module : Machine Learning for Master Executive student (OCP)

Supervisor of the final semester project for the Master's diploma (2 months):

- Deep hybrid CNNs and Autoencoders applied for cervical cancer diagnosis (Under Review).

Supervisor of the final semester project for the Master's diploma (3 months) (2 projects for 4 students):

- Deep bagging and boosting ensembles applied for histo/cyto pathological cervical cancer diagnosis. (Under Review)
- Deep bagging ensembles for breast cancer screening. (Under Review)

Supervisor / Lab Assistant Professor Jan 2021 – Sep 2021
Institute of Science, Technology and Innovation – IST&I – UM6P

- Lab session for the module : Artificial Intelligence (A.I.) for Bachelor Student

Supervisor of the final semester project for a Master student (3 months) (2 students):

- Deep CNNs for breast cancer screening (Under Review)

Supervisor of the final year project for Bachelor diploma (3 project for 3 Bachelor student) (3 months):

- Application of Machine Learning in structural performance monitoring structural performance of buildings (Green Energy Park)
- Modeling and predictive analysis of the demand on the market of phosphates: Machine Learning Approaches (OCP SA.)
- Deep CNNs for cervical cancer diagnosis (MSDA) (Published in the Wordcist'22 conference)

Supervisor of the final year project for Master diploma (6 months) (1 Master student)

- Deep Stacking and deep hybrid heterogeneous ensemble for breast cancer diagnosis (MSDA) (2 Published papers)

Supervisor Nov 2021 – Jul 2021
ENSIAS

Supervisor of the final semester project for Master's and Engineering students (3 months):

- Deep Hybrid Architectures for cytological breast cancer classification (Published in the ICCSA 21 conference)

Supervisor of the final year project for Master's and Engineering students (6 months):

- Deep hybrid bagging and boosting ensemble for breast cancer diagnosis (MSDA) (4 Published papers)

Design and Development Engineer Feb 2016 – Jan 2019
CGI Technologies & solution, Rabat

- Handling of production incidents.
- Analysis and treatment of problems.
- Correction of malfunctions
- Handling of non-conformities declared by the client
- Crisis and on-call management
- Planning and monitoring of exceptional data processing in relation to the customer and the operating teams.

- Supervision of new Interns

Technologies : PL/SQL, Sql analysis, MVS, COBOL,CICS, DB2, JCL, SPUFI, MAINFRAME, PLATINUM, environnement TSO.

PUBLICATIONS

- Machine Learning and Image Processing for Breast Cancer: A Systematic Map** 2020
 Zerouaoui, H., Idri, A., El Asnaoui, K.
 Trends and Innovations in Information Systems and Technologies. WorldCIST 2020. Advances in Intelligent Systems and Computing, vol 1161. Springer .
 Budva, Montenegro. (Core C) Selected for an extended version.
- Reviewing Machine Learning and Image Processing Based Decision-Making Systems for Breast Cancer Imaging.** 2020
 Zerouaoui, H., Idri, A.
 Journal of Medical Systems, 45, 8 (Q1, Impact Factor: 4.920)
- Breast Fine Needle Cytological Classification Using Deep Hybrid Architectures** 2021
 Zerouaoui, H., Idri, A., Nakach, F.Z., Hadri, R.E.
 Computational Science and Its Applications – ICCSA 2021. ICCSA 2021. Lecture Notes in Computer Science(), vol 12950. Springer, Cham.
 Hybrid, (CORE C)
- Deep hybrid architectures for binary classification of medical breast cancer images** 2022
 Deep hybrid architectures for binary classification of medical breast cancer images
 Biomedical Signal Processing and Control, Volume 71, Part B. (Q1, Impact Factor: 5.076)
- Classifying Breast Cytological Images using Deep Learning Architectures** 2022
 Zerouaoui, H., Idri, A.
 Proceedings of the 15th International Joint Conference on Biomedical Engineering Systems and Technologies - HEALTHINF. Online, (Core C)
- Random Forest Based Deep Hybrid Architecture for Histopathological Breast Cancer Images Classification** 2022
 Nakach, FZ., Zerouaoui, H., Idri, A.
 Computational Science and Its Applications – ICCSA 2021. ICCSA 2021. Lecture Notes in Computer Science(), vol 12950. Springer. Malaga, Spain, (CORE C)
- Assessing the Impact of Deep End-to-End Architectures in Ensemble Learning** 2022

**for Histopathological Breast Cancer
Classification**

Zerouaoui, H., Idri, A. and El Alaoui, O.
In Proceedings of the 14th International Joint Conference on
Knowledge Discovery, Knowledge Engineering and Knowledge
Management - KDIR, 109-118, 2022 .
Valletta, Malta. (Core C), Selected for an extended version.

**Whole-slide Classification of H&E-
stained Cervix Uteri Tissue using Deep
Neural Networks** 2022

Ilahcen, F. , Mboukou P.F.C., Zerouaoui, H., Idri, I.
In Proceedings of the 14th International Joint Conference on
Knowledge Discovery, Knowledge Engineering and Knowledge
Management - KDIR, 322-329, 2022.
Valletta, Malta (Core C)

**Deep Stacked Ensemble for Breast
Cancer Diagnosis** 2022

El Alaoui, O., Zerouaoui, H., Idri, A.
Information Systems and Technologies. WorldCIST 2022. Lecture
Notes in Networks and Systems, vol 468. Springer.
Pisa, Italy, (Core C)

**Deep Hybrid AdaBoost Ensembles for
Histopathological Breast Cancer
Classification** 2022

Nakach, FZ., Zerouaoui, H., Idri, A.
Information Systems and Technologies. WorldCIST 2022. Lecture
Notes in Networks and Systems, vol 468. Springer.
Pisa, Italy, (Core C)

**A new approach for histological
classification of breast cancer using
deep hybrid heterogenous ensemble** 2022

Zerouaoui, H., Idri, A. and El Alaoui, O.
Data Technologies and Applications, Vol. ahead-of-print No.
ahead-of-print, pp. 1-34. <https://doi.org/10.1108/DTA-05-2022-0210>.
(Q3, Impact Factor: 1.667)

**Hybrid deep boosting ensembles for
histopathological breast cancer
classification** 2022

Nakach F.Z., Zerouaoui H., Idri A.
Health and Technology, 12, 1043-1060 (2022).
(Q3, IF: 1.456)

**Histological breast cancer
classification using CNN and MLP based
ensembles.**

Zerouaoui, H. and Idri, A.
19th ACS/IEEE International Conference on Computer.
Abu Dhabi, UAE. (Core C) Awarded the best paper presentation
award.

**Binary classification of multi-
magnification histopathological breast
cancer images using late fusion and
transfer learning**

CERTIFICATES

ELSIEVER - Communicating your research	Nov 2022
<ul style="list-style-type: none">• Social Impact• Ensuring visibility• Inclusion and diversity for researchers	
Fundamentals of Accelerated Data Science NVIDIA DLI	2022
Application for AI for Anomaly Detection NVIDIA DLI	2022
Deep learning Specialization	Present
<ul style="list-style-type: none">• Neural network and deep learning (course complete)• Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization (course complete)• Structuring Machine Learning Projects (course complete)• Convolutional Neural Networks (course in progress)• Sequence models (course in progress)	
AICCSA'22 Certificate / Best Paper Presentation Award	Dec 2022
The 19th edition of the ACS/IEEE international conference on computer systems and applications	
BIOSTEC HEALTHINF 2022 Certificate	Feb 2022
15th International Joint Conference on Biomedical Engineering Systems and Technologies	
ICCSA 2021 Certificate	Jun 2021
International Conference on Computational Science and Its Applications	
Certificate of Reviewing Elsiever - Scientific African	2021
WorldCist 2020 Certificate	Apr 2020
The 8 th World Conference on Information Systems and Technologie	
ITIL Foundation AXELOS Global Best Practice	Jul 2017

INTERNSHIPS

Graduation Internship	Feb 2016 - Jul 2016
CGI Technologies and solution, Rabat	
<ul style="list-style-type: none">• Integration of the support team of a mass retail customer• The rise in functional and technical competence• Correction of malfunctions• Capitalization to optimize skills management• Service request change management.• Management and resolution of incident type anomalies	

Assistant Engineer

TekInside, Rabat

- Back-office and front-office development of the mobile application.
- Link with REST web service
- Design and implementation of unit tests, functional tests and integration tests

Technologies: Android,Json, JQuery, PHP, REST, Sql et tests d'intégration

Assistant Engineer

4D, Rabat

- Development of a web application for the distribution of emails to a company's customers.
- Adaptation of the application in mobile version.

Technologies: Wakanda, Javascript, Html, Css, Git

EXTRACURRICULAR ACTIVITIES

Social-Up your Start-Up | MASTERCLASS Jan 2023 - Jan 2023

Microsoft - UM6P - GDEXA

Three week Masterclass from Industry experts

Technical workshops on AI

M-Next Hackathon Judge

May 2022 - May 2022

google

Google Developer Student Clubs

Co-Ambasador - Women In data Science

Jan 2021 - Jan 2022

Stanford University

Social Impact where you learn how to write a great lay summary and to share your research more widely.2- Ensuring visibility where you learn how to promote your publication in the writing stage and post publication.3- Inclusion and diversity for researchers where you learn how to advocate I&D to lead more impactful scientific research.

Mentor DigiGirlz

Jan 2020 - Dec 2020

Microsoft

DigiGirlz Mentorship Program in collaboration with Microsoft, US Embassy morocco and Annoual association.

The main goal is to provide high school girls with a better understanding of what a career in technology & STEM is like.

During the program we mentored two groups of 7 high school student each, to develop a mobile application in order to solve a rural problem in Benguerir City.

ACHIEVEMENTS

- Microsoft Ph.D. Fellow (2022/2023) - Awarded from Microsoft Research)
- Best Paper Presentation award at the 19th edition of the ACS/IEEE international conference on computer systems and applications (AICCSA 2022), held in Abu Dhabi - UAE December 5th - December 7th at Zayed University.

REFERENCES

Ali Idri

Full Professor at ENSIAS and Affiliate Professor at UM6P
idri.ali123@gmail.com, ali.idri@um6p.ma

Ahmed RATNANI

Director at Al-Khwarizmi department and Assistant Professor at
UM6P
ahmed.ratnani@um6p.ma

Ikram Chairi

Assistant Professor at UM6P
ikram.chairi@um6p.ma

Ibtissam Abnane

Assistant Professor at ENSIAS
ibtissam.abnane19@gmail.com

MOHAMED RADOUANE

Assistant Professor at Ensias
mohamed.radouane@ensias.um5.ac.ma