

Dr. ZOUHRI Houssam

Data Scientist & PhD researcher
UM6P, benguerir, Morocco

Specialized in AI, ML techniques, with expertise in developing intrusion detection systems and adversarial defense strategies. Skilled in deep learning, data analysis, and big data technologies.

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GitHub Profile
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EDUCATION

- PhD in Cyber Attack Detection** 02/2022 – Present
UM6P, Rabat, Morocco
This work aims to enhance the performance of Intrusion Detection Systems by improving generalizability, efficiency, and interpretability. It addresses key challenges such as feature selection, class imbalance using Generative AI, and the application of interpretability techniques to ensure transparent and effective attack detection.
- Master: Data Science and Decision Support** 09/2019 – 07/2021
UM6P, Benguerir, Morocco

PERSONAL PROJECTS

- Facial recognition system**
Built a website for facial recognition-based attendance system for organizations.
 - Automatic recognition of a person’s face to implement a presence detection system in a company.
 - Technology Used: Django, Bootstrap, HTML.
- State Farm distracted driver detection**
Implemented CNNs and transfer learning to detect distracted drivers.
 - Distracted driver detection using convolutional neural networks and transfer learning.
 - Technology Used : CNN, Tensorflow, Python.

EXPERIENCE

- Data Engineer** 02/2022 – Present
Confidential Rabat, Morocco
 - Designed and optimized data pipelines for large-scale data processing.
 - Ensured data integrity and scalability for analytics and machine learning workflows.
- Data Scientist Internship** 02/2021 – 09/2021
Freelance Medical Laboratory, France
 - Implemented machine learning models to identify trends in patient health data.
 - Anticipate any need for chemistry to keep the patient stable.

PUBLICATIONS

- Evaluating the impact of filter-based feature selection in intrusion detection systems** 2024
International Journal of Information Security Q2, Impact Factor: 3.872
- A Comparative Assessment of Wrappers and Filters for Detecting Cyber Intrusions** 2024
World Conference on Information Systems and Technologies
- Assessing the effectiveness of dimensionality reduction on the interpretability** 2024
Computers and Electrical Engineering Q1, Impact Factor: 4
- Assessing the Effectiveness of Synthetic Data Generation for Multi-Class Cyber-Attacks ..** 2024
World Conference on Complex Systems (WCCS)

TECHNICAL SKILLS

- **CI/CD:** GIT, GitHub, GitLab, Jenkins
- **Ecosystem:** Hadoop, Spark, Kafka, Avro
- **Containerization/Orchestration:** Kubernetes, Docker, Ansible
- **NoSQL Databases:** Cassandra, BigTable
- **Search Tools:** ElasticSearch, Kafka Streams
- **Cloud Platforms:** GCP (BigQuery, GKE), AWS (WMR, ATHENA), Azure
- **DevOps:** AWS DevOps, Terradata
- **Other Tools:** Power BI, Tableau, Airflow, PySpark, SQL

LANGUAGES

- English: Fluent
- French: Fluent
- Arabic: Native