

# ZAKARIAE HAMEDOUN

Smart Systems Engineer



## WHO AM I?

I am a graduate of ENSIAS. My training has allowed me to acquire several skills in embedded systems, internet of things and web development through the completion of several academic and personal projects.



Fes, Maroc.



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## EDUCATION

2019 – 2022

**Student in Smart Systems Engineering at ENSIAS**

Ensias, Rabat

2017 – 2019

**Student in Technology and Industrial Sciences at Preparatory Classes**

Omar Ibn Abdelaziz, Oujda

## EXPERIENCE

mars-août 2022  
Stage PFE

### Web Developer

1000Kelvin GmbH, Berlin

Design and implementation of a GPU web-based application for the simulation of 3D printing process.

ReactJS / BabylonJS / Vtk.js / CSR / SSR / CUDA

juillet-août 2021  
Stage 2ème année

### Desktop Developer

MAScIR Fondation, Rabat

Design and implementation of a desktop application for the extraction of 3D vehicle characteristics using a stereo vision camera.

OpenCV / C++ / Python / Google Apps Script

août 2020  
Stage 1er année

### Web Developer

University Hospital Center Hassan II, Fes

Implementation of a web application for monitoring the status of the servers.

Django / Python / HTML / CSS

## SIDE PROJECTS



### Pothole Locator System

**Travail réalisé :** Design and implementation of a pothole localization and visualization system.

**Technologies :** MapBox / NodeJS / MongoDB / Python / Raspberry PI / YOLO



### Obstacle Avoidance System

**Travail réalisé :** Development of an obstacle avoidance robot using Reinforcement Machine Learning (1st prize of the CELEC competition in Artificial Intelligence).

**Technologies :** Arduino / Q Learning Algorithm / TinyML



### Cracks Detector in Train Rails

**Travail réalisé :** Implementation of a Machine Learning Binary Classifier to monitor the condition of rails in order to automate their maintenance.

**Technologies :** Python / Keras / Pandas / Kaggle

## LANGUAGES

**English** - Professional

**French** - Professional

**Arabic** - Native

## HOBBIES

Problem solving

Football

Gaming

## VOLUNTEERING

Active member of the CINDH volunteering club of ENSIAS