

Ayoub FATIHI

Geomatics and Surveying Engineering Student
IAV Hassan II, Rabat, MOROCCO

- Curious
- Affinity toward analysis
- Team player

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Competences

BIM, Image processing, Machine Learning, GIS

Langages :

- Python
- Matlab, VB, 'SQL'
- C, Julia

OS : • Linux • Windows

Arabic : ●●●●●
English : ●●●●●
French : ●●●●●


Mastered software:

- Word, Excel, PowerPoint, Access
- AutoCAD, COVADIS, Revit, Recap
- Qgis, ArcGIS (Desktop & PRO)
- TBC, ERDAS, ENVI
- 3DRshp, Pix4D, OpenDroneMap ...

Studies

2018 - 2022	Geomatics and Surveying Engineering, IAV Hassan II
2018	APESA (Preparatory Year for Advanced Studies in Agronomy)
2017	Scientific Baccalaureate, Mathematics Option A

Professional Experience

Sep 2021 (1m)	Corporate Internship, ETAFAT <ul style="list-style-type: none">• Stability control of the Mohamed V tower• Drone mission, calculation of cubatures• Topographic survey by total station and GNSS, realization of side plan• Mini-project: Aerotriangulation, extraction of derived products (DTM, DSM, Orthophoto)• Development of a python script to automate the conversion of raw observations to make them usable under covadis • Development of a solution to collaborate in BIM online• Working with different teams• Exploring the dynamics of the company
2021	Integration of a 3D scanning module of a building from images taken by the Map-Mint4ME android application and visualization of the model on MapMint, OSGeo [GSoC-2021], Online [Wiki (bit.ly/3fYdQ3Q)] <ul style="list-style-type: none">• Creating the user interface elements of the android application to take images• Obtaining textured 3D models from simple 2D images using OpenDroneMap• Configuring MapMint on a Docker container• Visualizing a 3D model using Cesium• Visualizing a 3D model using ThreeJS• Creation of a simple WEB user interface to visualize the 3D model

2021	STUDY PROJECT: Optimal design of a HSR using a GIS-AHP approach; supervised by Pr. YAAGOUBI Reda [Abstract (bit.ly/3jMA7To)] <ul style="list-style-type: none"> • Raster-based analysis study • Multi-criteria decision making • Publication of an article describing the project in the journal 'AMETOP' 22nd edition
Sep 2020 (1m)	Corporate Internship, ANGTOP, Khouribga <ul style="list-style-type: none"> • Surveying and layout • CAD drawing
2020	PROJECT: 3D modeling of the department of Topography at IAVH2 [21st edition of the AMETOP-Enterprises Forum] <ul style="list-style-type: none"> • Advanced modeling based on real field measurements. • Building modeled in LOD400, representing the finest details. • Photorealism, a complete texturing based on photoscans of real textures in HD. • Immersive visit with VR.
Jul 2019 (13d)	SIR (Initiation to ruralism course), IAVH2, BabLamrouj, TAZA <ul style="list-style-type: none"> • Historical, sociological, topographical, cultural, economic study of a Douar (village) • Collection of data from its inhabitants • Communication with people who have a limited level of literacy
Jul 2018 (8d)	SDN (Nature Discovery Course), IAVH2, Ras el Ma, FES <ul style="list-style-type: none"> • 60 km hike using only maps and a compass • A study of the fauna, flora and geology of the area

Coursework projects

- Visualization of the geodesic line between 2 given points - MATLAB
- Benford's law: [!\[\]\(95b42f0077faf7439a26242a54e021ec_img.jpg\)](#)
- Supervised classification of Sentinel-2 image using sklearn (Python): [!\[\]\(e097ab4c08b8186dd0908330bbc2dc28_img.jpg\)](#)
- Fullstack application about precipitations in Morocco: [!\[\]\(1e9d865c5de095f8e3304757c49e79d7_img.jpg\)](#)

Extra-professional activities

- Private Tutor
- Volunteer teacher for the "AjialAnnajah" project of the Eden association
- Organizer and animator of events within the association AMETOP
- Trainer for engineering students : "3D modeling with SketchUP"

Hobbies and interests

- * Running
- * Football
- * Basketball
- * Reading