

# Hasan Moughnieh

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## CAREER SUMMARY

AI enthusiast with an academic foundation in Electronics and Communication Engineering, eager to apply machine learning knowledge to practical AI challenges. Seeking a full-time role to innovate and drive impact in the AI industry through dedicated research and continuous skill advancement.

## WORK EXPERIENCE

### GEOspatial Artificial Intelligence Group ([GEOAI](#))

**Mar 2023 - Current**

*Computer Vision Researcher*

Beirut , Lebanon

- Continuously investigated Meta's Segment Anything Model (SAM) .
- Integrated a pre-trained CNN as a prompt generator into SAM, enhancing its performance.
- Co-created a Awesome Vision-Language for RS ([VLM4EO](#)) Github repository.
- Demonstrated SAM in the 5th NOAA Workshop on Leveraging AI in Environmental Sciences and in "Embracing AI in Geospatial Field" webinar series.
- Continuous Exploration for techniques to adapt foundation models for Geo-Spatial applications.

### Ogero

**June 2022 - Aug 2022**

*Telecommunication Intern*

Saida , Lebanon

- Hands-on experience with cabling, fault detection, testing, and Ogero's cabling system architecture.
- Enhanced knowledge of router configuration, ADSL, DSL, Smart City, Home Automation, and IoT concepts.

## TECHNICAL PROJECTS

### Zero-Shot Refinement of Buildings' Segmentation Models using SAM - GEOAI

- Investigate various single and composite prompt strategies on SAM using Remote Sensing data.
- Experiment with two CNN models as prompt generators to SAM to get more accurate instance segmentation masks.
- Resulted in a [research paper](#) submitted to the "The 5th International Electronic Conference on Remote Sensing"

### Compact Dual Band Branch Line Coupler For Wireless Applications - Final Year Project

- Developed a Compact Dual Band Branch Line Coupler operating at WiFi frequencies, addressing challenges in modern communication system design.
- Collaborated with a team of four members and two supervisors.
- Resulted in a [research paper](#) published in IEEE MISTA-2023.

## EDUCATION

### Beirut Arab University

**Graduated: Dec 2022**

*Bachelor of Electronics and Communications Engineering (GPA: 3.87)*

Organizations/Awards: Dean's Honors List, Member of BAU IEEE society

## CERTIFICATIONS

**Deep Learning Specialization** | DeepLearning.AI on Coursera

**Achieved Feb 2023**

**DeepLearning.AI TensorFlow Developer Specialization** | DeepLearning.AI on Coursera

**Achieved May 2023**

**Generative Deep Learning with TensorFlow** | DeepLearning.AI on Coursera

**Achieved Oct 2023**

## SKILLS

### Technical Skills

- |                       |              |                |
|-----------------------|--------------|----------------|
| • Python (Proficient) | • TensorFlow | • AI / ML / DL |
| • SQL (intermediate)  | • Pytorch    | • Matlab       |

### Interpersonal Skills

- |                   |                 |                      |
|-------------------|-----------------|----------------------|
| • Research        | • Multi-Task    | • Time Management    |
| • Problem Solving | • Communication | • Project Management |