Hasan Moughnieh

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CAREER SUMMARY

Computer Vision researcher with an academic foundation in Electronics and Communication Engineering. 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
Transitioned from Intern to Full-time Researcher

- Continuously investigated Meta's Segment Anything Model (SAM) .
- Integrated a pre-trained CNN model as a prompt generator for SAM, specifically to enhance the segmentation of buildings in remote sensing images.
- 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.
- Adaptation of visual grounding foundation models for Geo-Spatial applications.
- Represented the group at the European Geosciences Union (EGU), presenting our preliminary work on "Efficient adaptation of Foundation Models for visual grounding remote sensing"

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 published at"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 at 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

- AI / ML / DL
- Computer Vision
- Multi-Modality
- Python
- Pytorch
- TensorFlow
- Google Cloud
- Linux
- SQL