

# Benjamin Missaoui

Highly motivated Master's student at Georgia Tech graduating May 2024. Looking for full-time, internship or PhD positions

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## WORK EXPERIENCE

### AI Research intern, Foundation Models

[Bosch Research, Singapore](#)

May 2023 - now (*supervisor: Dr Chi Trung Ngo*)

- Investigated the use of SAM for better region proposal for self-supervised contrastive learning (Accepted at [NeurIPS 2023 Workshop](#) + under review at [CVPR 2024](#))
- Invented a method for automated batch image annotation for object detection and image segmentation ([Patent Fulfillment](#))
- Fine-tuned [LLMs](#) for CAD models understanding

### Research assistant, 3D Computer Vision

[Georgia Tech Europe, France](#)

Jan 2023 - May 2023 (*supervisor: Dr Cédric Pradalier*)

- Extended NeRFs from RGB to HyperSpectral for HS generation and wavelength interpolation (submitted to [ICCV 2023](#))

### Research assistant, Autonomous Vehicles

[CNRS - National Center for Scientific Research, France](#)

Sep 2022 - Feb 2023 (*6 months, supervisor: Dr Philippe Xu*)

- Developed a method for projecting landmarks from maps to the vehicle's cameras to generate labeled data for object detection (fusing camera, lidar and IMU data). Accepted at [IV 2023](#)

### Research Engineer intern, Computer Vision

[Scortex, Paris, France](#)

July 2021 - Jan 2022 (*6 months, supervisor: Antoine Cordier*)

Topic: unsupervised Anomaly Detection:

- Fine-tuned CNNs with synthetic data to improve defect detection AUC from 91.6 to 96+ points.

## EDUCATION

### Master of Science, Computer Science

[Georgia Institute of Technology, Atlanta, USA](#)

From January 2023 to May 2024 (expected graduation date)

GPA: 3.8/4.0

### Master of Engineering, Computer Science

[Université de Technologie de Compiègne, Compiègne, France](#)

From September 2018 to June 2023

GPA: 3.9/4.0

## PUBLICATIONS

[1] B. Missaoui, C. Yuan  
SAMCLR: Contrastive pre-training on complex scenes using SAM for view sampling  
Accepted at [NeurIPS 2023 workshop](#)

[2] B. Missaoui, M. Noizet, P. Xu  
Map-aided annotation for pole base detection  
Accepted at [IV 2023](#)

## PATENTS

[1] Automated Image Annotation Method And System (2023)

## PREPRINTS / UNDER REVIEW

[1] B. Missaoui, C. Yuan, C. T. Ngo  
Towards disambiguated self-supervised learning  
Under review at [CVPR 2024](#)

[2] G. Chen, H. Muriki, B. Missaoui, al.  
Hyper-NeRF: Hyperspectral Neural Radiance Fields with Continuous Radiance and Transparency Spectra  
Submitted to [ICCV 2023](#)

[3] A. Cordier, B. Missaoui, P. Gutierrez  
Data refinement for fully unsupervised visual inspection using pre-trained networks, 2022

## SKILLS

Python, C/C++, R, ROS, PyTorch, TensorFlow, Langchain, git, scrum

## PERSONALITY

Thorough, self driven, hard-worker, open minded, team player

## LANGUAGES

- French: native
- English: fluent (TOEFL: 114/120)
- Italian & German: elementary

## INTERESTS

Music: Piano, Student orchestra  
Other: Sport, Traveling