

(+33) 6 60 04 76 56
27 years old
Brest, France

Yassir BENDOU

LinkedIn: yassir-bendou
Website | Scholar
FirstName.LastName@gmail.com

EDUCATION

- Ph.D. candidate, Deep Learning, IMT Atlantique** **Brest, France**
Nov 2021 - Nov 2024
- Few-shot Learning, Vision-Language Models, Efficient fine-tuning, Transfer Learning, Robust optimization
 - Developed state-of-the-art methods for few-shot adaptation in computer vision.
 - Ph.D in collaboration with Sony R&D.
- Engineering Degree, IMT Atlantique** **Brest, France**
2017 - 2021
- Machine Learning & Mathematical Engineering specialization
 - Cumulative GPA: 3.9/4
 - Relevant Coursework: Computer Science, Machine Learning, Data Science, Statistics, Mathematical Optimization
 - Awards: Futur & Ruptures scholarship for Ph.D (awarded for top students in IMT group)
- Exchange Semester, National University of Singapore (NUS) and Yale NUS** **Singapore**
Jan 2019 — June 2019
- Computer Vision, Deep Learning, Databases and Analytics
- Preparatory Classes for French Engineering Schools, Maths and Physics** **Marrakech, Morocco**
2015 — 2017
- Calculus, Linear Algebra, Probabilities, Physics

PROFESSIONAL EXPERIENCE

- Sony R&D** **Stuttgart, Germany**
August 2022 — December 2023
Research intern
- Designed a method for enhancing few-shot performance of vision-language models using metric learning.
 - Developed a statistical method for predicting generalization of few-shot classifiers.
 - Two joint papers accepted at NeurIPS'W and IEEE EUSIPCO 2023.
- INRIA** **Grenoble, France**
April 2021 — September 2021
Research Intern
- Developed a new framework for cross-domain object localization in medical images (MRI and CT scans) using U-Nets.
 - Utilized adversarial training, cross-domain training and domain adaptation techniques to increase performance by 41% over the baseline.
- Amazon** **Luxembourg**
August 2019— August 2020
Data Scientist Intern
- Designed an end-to-end pipeline for setting protective measures for Amazon's shipping routes.
 - Optimized the speed and reliance of the transportation network. The model was deployed to production and impacted around 2 Million packages per day across EU.
 - Used time series forecasting and mixed-integer programming to balance the reliance/speed trade-off.
 - Automated the pipeline using Airflow to run SQL ETLs, train a forecasting model and track the predictions on a Django website.
 - Additional responsibilities: Managing the team's AWS infrastructure and interacting with stakeholders.

SKILLS

Technical Python, Pytorch, accelerate, Tensorflow, Git, SQL, Julia, Java, AWS, HTML/CSS
Languages English (fluent), French (native), Arabic (native)

OPEN-SOURCE

- Collaborative [platform](#) on Hugging Face dedicated to coordinating assistance for individuals impacted by the Morocco earthquake in 2023. I took part of building the platform, supervising the technical team and presenting the work at NeurIPS 2023. The platform received more than 2000 requests and 240 interventions were performed. 5th most viewed space on Hugging Face during peak period.

TEACHING & LEADERSHIP

- **Efficient Deep Learning:** Pruning, Quantization, Distillation (16h Lab sessions).
- **Introductory course to Machine Learning:** Supervised/Unsupervised/Reinforcement Learning (10h teaching, 16h Lab sessions).
- Supervised 2 summer interns who published the work in IEEE EUSIPCO 2024.

(+33) 6 60 04 76 56
27 years old
Brest, France

Yassir BENDOU

LinkedIn: [yassir-bendou](#)
Website | Scholar
FirstName.LastName@gmail.com

PUBLICATIONS

- Jonathan Lys, Frederic Lin, Clément BELIVEAU, Jules Decaestecker, [Yassir BENDOU](#), Aymane Abdali, and Bastien Pасdeloup. “FICUS: Few-Shot Image Classification With Unsupervised Segmentation”. In IEEE EUSIPCO, Lyon 2024.
- [Yassir Bendou](#), Bastien Pасdeloup, Giulia Lioi, Lukas Mauch, Fabien Cardinaux, Ghouthi Boukli Hacene, Vincent Gripon. “LLM meets Vision-Language Models for Zero-Shot One-Class Classification”. Preprint 2024.
- Raphael Lafargue, [Yassir Bendou](#), Bastien Pасdeloup, Jean-Philippe Diguеt, Ian Reid, Vincent Gripon, Jack Valmadre. “Few and Fewer: Learning Better from Few Examples Using Fewer Base Classes”. Preprint 2023.
- [Yassir Bendou](#), Vincent Gripon, Bastien Pасdeloup, Giulia Lioi, Lukas Mauch, Fabien Cardinaux, Ghouthi Boukli Hacene. “Inferring Latent Class Statistics from Text for Robust Visual Few-Shot Learning”. In NeurIPS’W, New Orleans 2023.
- [Yassir Bendou](#), Vincent Gripon, Bastien Pасdeloup, Giulia Lioi, Lukas Mauch, Stefan Uhlich, Fabien Cardinaux, Ghouthi Boukli Hacene, Javier Alonso Garcia. “A Statistical Model for Predicting Generalization in Few-Shot Classification”. Best student paper nominee in IEEE EUSIPCO, Helsinki 2023.
- [Yassir Bendou](#), Yuqing Hu, Raphael Lafargue, Giulia Lioi, Bastien Pасdeloup, Stéphane Pateux, Vincent Gripon. “EASY: Ensemble Augmented-Shot Y-shaped Learning: State-Of-The-Art Few-Shot Classification with Simple Ingredients”. Best paper in Journal of Imaging 2022.