Alberto Maté

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Experience

CVML, National University of Singapore (NUS), Research Intern — Singapore, Singapore · Sep 2024 – Present
- Master's Thesis intern at the Computer Vision & Machine Learning (CVML) lab under the supervision of Guodong Ding and Angela Yao.
- Submitted a paper to ICCV2025 conference (under review) in the topic of "Semi-supervised learning for video moment retrieval" showing how with only 10% labeled data, our method can achieve 85% of performance compared with fully-supervised methods.

Institut de Robòtica i Informàtica industrial (IRI, CSIC-UPC), AI Research Engineer — Barcelona, Spain · Nov. 2023 – Aug. 2024
- Research in "Long-term action anticipation in untrimmed videos" supervised by Mariella Dimiccoli.
- Developed a novel encoder-decoder framework introducing a bidirectional action context regularizer and a transition matrix improving previous state-of-the-art methods. Paper submitted to IJCV (under review) [Paper 🔗].

Dive.tech, Data Scientist — Madrid, Spain · Feb. 2023 – Aug. 2023
- Led AI development for a client project involving multi-camera, multi-target tracking, ensuring safety by detecting zone transgressions in an electric substation.
- Optimized YoloV7 for real-time CPU inference using OpenVINO, quantization, and pruning, improving FPS from 5.2 to 33.7 while maintaining accuracy.

Dive.tech, Data Scientist Intern — Madrid, Spain · Sep. 2022 – Feb. 2023
- Developed internal MLOps tools for deployment, monitoring, and experimentation, enhancing operational efficiency.
- Developed an internal annotation tool from scratch using React JS.

Education

Universitat Politècnica de Catalunya (UPC), MSc in Artificial Intelligence *(GPA: 8.9/10)* — Barcelona, Spain · Sep 2023 – Present
- Relevant coursework: Natural Language Processing (NLP), Computer Vision (CV), Deep Learning (DL), Reinforcement Learning (RL)

Universidad Carlos III de Madrid, BSc in Computer Engineering *(GPA: 8.7/10)* — Madrid, Spain · Sep 2019 – July 2023
- Honorous in 8 courses: Linear Algebra, Algorithms and data structures, Automata and formal language theory, among others.
- Bachelor's Thesis: "Applications of Deep Reinforcement Learning in autonomous cars" (9.1/10). The GitHub project currently has +80 stars and +10 forks. [Project 🔗]

University of Sydney (USYD), Excellence Non-European Exchange Program in Computer Engineering — Sydney, Australia · 2022
- Obtained High Distinction (HD) in COMP3308: Introduction to Artificial Intelligence

Publications

Alberto Maté, Mariella Dimiccoli. "Temporal Context Consistency Above All: Enhancing Long-Term Anticipation by Learning and Enforcing Temporal Constraints" *ArXiv 2024* — Paper 🔗

Personal Projects

Explore AI | React Native (Expo 52), PostgreSQL, NativeWind, Zustand, OpenAI API, Wikipedia API. — GitHub 🔗
- Developed a native mobile app that uses real-time location data and AI-powered descriptions to guide users in discovering city landmarks.

Challenge Habits | Next.js 14, Tailwind, Supabase, Vercel — Web App 🔗
- Built and deployed a social habit-tracking app, enabling users to challenge friends, set weekly habits, and compete for EXP points based on consistency.

Skills

Programming languages: Python, C++, React, PostgreSQL, ...
Frameworks: PyTorch/PyTorch Lightning, W&B, MLFlow

Languages: Spanish (Native), English (C1 certificate)
Soft skills: Proactivity, Hard-working, Adaptability

Awards

3x Excellence Scholarships, Community of Madrid: 2019, 2020, 2021
Tuition Fee Scholarship, SEIDOR: 2023-2024