HIND DADOUN

Recently relocated to the Bay Area with a PhD in Computer Science. Expertise in computer vision, multi-modal learning, and ML pipelines, with experience deploying production-ready models for healthcare. Seeking a team that values curiosity, rigor, and knowledge sharing.

Authorized to work in the U.S. on an L-2 visa.

CONTACT

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TECHNICAL SKILLS

- **Machine Learning/AI:** Computer Vision, Self/Semi-Supervised Learning, Multi-modal Learning, NLP (including LLMs – strong knowledge of fundamental theory & state of the art techniques).
- **Frameworks/Libraries:** PyTorch, Hugging Face, ONNX, OpenCV
- **Programming:** Python (Advanced), Bash (Intermediate), C/C++ (Beginner), Java (Beginner)
- **Cloud & DevOps:** AWS, Docker, CI/CD, Terraform, Kafka
- **Databases:** PostgreSQL

LANGUAGES

- Native Arabic & French speaker
- Fluent English speaker

PUBLICATIONS

- H. Dadoun et al., "**Joint representation learning** from French radiological reports and ultrasound images," ***ISBI, 2023.***
- H. Dadoun et al., "**Deep clustering** for abdominal organ classification in ultrasound imaging," ***Journal of Medical Imaging, 2023.***
- H. Dadoun et al., "Deep learning for the **detection, localization, and characterization** of focal liver lesions on abdominal US images," ***Radiology: Artificial Intelligence, 2022.***
- H. Dadoun et al., "Combining **Bayesian** and **Deep Learning** methods for the delineation of the fan in ultrasound images," ***ISBI, 2021***.

EXPERIENCE

EchOpen

Head of AI | Oct. 2024 – Feb. 2025

- Led development of a production-ready bladder volume estimation ML library, implemented in C++ and optimized for mobile deployment.
- Collaborated with cross-functional teams to manage the design, development, implementation, and regulatory compliance of the AI solution.

AI Scientist | Jan. 2023 – Sep. 2024

- Trained, validated, optimized, fine-tuned & deployed on mobile state of the art AI models for bladder volume and ejection fraction estimation, effectively contributing to each major stage of model development.
- Managed data ingestion, dataset creation & curation, for example, designing and deploying a secure data ingestion pipeline for medical data, including interface design, GDPR compliance, and cloud transfer using Kafka and broadly implementing data backups, versions, alerts & monitoring
- Hosted and maintained open-source tools (Label Studio, Metabase, FiftyOne) on-premise to support data acquisition, labeling workflows, and monitoring pipelines critical to AI development.

Univ Côte d'Azur

Teaching Assistant | Sep. 2020 – Dec. 2022

- Taught Basic Algorithms, an introductory Python programming course (15h: 6h lecture + 9h tutorial) to MSc students; also evaluated MSc 1 and MSc 2 internships.

GE Healthcare

Research Intern | Apr. 2019 – Sep. 2019

- Explored deep generative models to interpolate missing Digital Breast Tomosynthesis projections and reduce replication artifacts, achieving higher-quality reconstructions than standard interpolation methods.

EDUCATION

PhD Candidate in Computer Science

INRIA Sophia Antipolis | Dec. 2019 - Dec 2022

Thesis : AI-based analysis of abdominal ultrasound images to support medical diagnosis

- **Developed** advanced object detection, self- and semi-supervised, multi-modal learning, and NLP techniques for abdominal ultrasound imaging using both **CNNs** and **Transformer** architectures.
- Developed a large-scale database of ultrasound images with matching medical reports in collaboration with medical experts, the Health Data Hub and Paris Hospitals.

Master's in Machine Learning - MVA

ENS Paris Saclay | 2018 - Sept 2019

- France's **top AI master's program**, globally recognized for excellence in mathematics and machine learning.
- Advanced theoretical and practical training in modern **ML research**, with hands-on projects on state-of-the-art methods.

Undergraduate in Applied Mathematics

Paris Dauphine PSL | 2014 - 2018

Courses: Advanced Mathematical & Computational Analysis.