

Othmane Echchabi

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EDUCATION

McGill University & Mila - Quebec AI Institute

Master's of Science in Computer Science

Montréal, QC

Aug. 2025 – Present

Duke University / Duke Kunshan University

Bachelor's of Science in Data Science

Durham, NC / Suzhou, China

Aug. 2021 – May 2025

- Thesis: *Monitoring Spartina Alterniflora Using Self-Supervised Learning*
- Study Abroad: Universidad Carlos III de Madrid - Spring 2022.

PROGRAMMING SKILLS & LANGUAGES

Frameworks/Developer Tools: React, Django, Git, Docker, CI.

Languages/Libraries: Python, Java, SQL (Postgres), JavaScript, R, PyTorch, TensorFlow, Scikit-Learn.

Spoken Languages: Arabic (native); French (fluent); English (fluent); Chinese (intermediate); Spanish (conversational)

EXPERIENCE

Machine Learning Research Intern

University Mohammed VI Polytechnic

Jul. 2025 – Dec 2025

Benquerir, Morocco

- Unified a 10-yr global crop-yield to a fertilizer dataset (N/P/K) across 150+ countries.
- Shipped transformer field-recs and an agentic LLM + retrieval copilot (RAG).

Research Assistant

Duke Kunshan University

Jun. 2024 – Aug. 2025

Suzhou, China

- Built a 300k-image, ground-truthed satellite dataset across 50/54 African countries; trained DINO (ViT backbone) model to 97% accuracy (*supervised by Dr. Ka Leung Lam*).
- *SpeedTransformer*: SOTA 96% Top-1 on Geolife transport-mode prediction (+3%); launched *CarbonClever*, a social app turning mobility insights into personal CO₂ reductions (*supervised by Dr. Charles Chang*).

Research Assistant

University of Missouri

Jan. 2025 – Jun. 2025

Columbia, MO

- Built a Perceiver IO-based foundation model and a VAE simulator for wildfire spread from satellite + climate data, achieving SOTA on the WSTS+ Benchmark. (*Supervised by Dr. Jordan Malof*).

Research Fellow

Duke University

Jun. 2023 – Aug. 2024

Durham, NC

- Mapped invasive salt-marsh species with ViTs on Sentinel-2/Landsat; presented landscape-scale outputs at [Duke Climate+ 2024](#) to inform conservation policy (*Supervised by Dr. Wenhong Li & Dr. Ding Ma*).

PUBLICATIONS & PREPRINTS

O. Echchabi, et al. *Tracking Progress Towards SDG 6 Using Satellite Imagery*. [arXiv:2411.19093](https://arxiv.org/abs/2411.19093).

O. Echchabi, N. Talty. *Football AI Tracker: End-to-End Player Tracking from Low-Quality Recording*.

Z. Yuandong*, **O. Echchabi***, et al. *SpeedTransformer: Predicting Human Mobility with Dense GPS and Transformers* (Under Review).

TEACHING & VOLUNTEERING

McGill University & Mila: COMP 303 Teaching Assistant; Mila Lab Representative; Muslims in Tech Board Member

Duke Kunshan University: Resident Assistant; Student Athlete & Soccer Varsity Co-Captain; CS Club Software Developer [[website](#)]; Math & CS Teaching Assistant

FIFA World Cup 2022: Team Leader, Spectator Services Volunteer

FADI Academy: Partner & Math Tutor

GRANTS & AWARDS

McGill CS Graduate Award \$30k/yr (2025); McGill Registration Bonus \$5k (2025); DKU Experiential Fellowship \$1k (2024); Signature Work Grant \$1.5k (2023); Innovation Incubator \$3k (2023)