

Ayoub EL Majjodi

DATA SCIENTIST

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Profile

Data Scientist with a PhD in Recommender Systems and a strong focus on applied machine learning. Experienced in designing AI-driven solutions that boost user engagement and support better decision-making. Skilled in building end-to-end recommendation systems, validating impact through A/B testing, and collaborating across teams to translate research into practical tools. Passionate about aligning data-driven approaches with real-world user needs and business goals.

Skills

- Programming:** Python, R, SQL, C, Java, Linux shell
- ML Engineering:** ML/DL Algorithmes, Python (Pandas, Numpy, Matplotlib, Scikit-Learn), PyTorch, MLflow
- Data science pipeline:** Cleaning, Visualization, Modeling, Interpretation, Statistical Analysis
- Web Dev:** HTML, CSS, Django, JavaScript
- DevOps & Cloud:** Git, Docker, AWS
- Certification:** Generative AI with LLMs; Applied Machine Learning; Deep learning specialization
- Language:** Amazigh (Native), English (Fluent), French (Advanced), Norwegian (Intermediate)

Education

University of Bergen, MediaFutures	2021 - 2025 (August)	Bergen, Norway
PhD in Recommender systems and digital nudges for healthier decision making		
National Advanced School of Computer Science and System Analysis	2017 - 2019	Rabat, Morocco
Master in Data Science and Big Data		
IBN Zohr University, Faculty of Science	2014 - 2017	Agadir, Morocco
Bachelor of Mathematics and Computer Science		
Dakhla High School Ouled Berhil	Baccalaureate in Mathematics	2013 - 2014 Taroudant, Morocco

Experience

PhD Candidate	MediaFutures, Bergen, Norway
RESEARCH & DEVELOPMENT	
2021 - 2025	
<ul style="list-style-type: none">Recommender Algorithms: Developed ML-based models and recommender algorithms for personalized food content.Recommendations Framework: Built a standalone recommender system framework for preference elicitation recommender algorithm integration, and recommendation delivery.A/B Testing: Design and conduct A/B tests to statistically, evaluate algorithm performance, user interface, and user engagement.	
PROFESSIONAL SERVICES	
<ul style="list-style-type: none">Teaching and supervision: Teaching recommender systems and data science courses. Supervision of different master thesis.Hiring committee: Served on hiring committees for academic and research positions.	
Researcher Intern	University Of Bari, Bari, Italy
RESEARCH & DEVELOPMENT	
Sept-Dec 2024	
<ul style="list-style-type: none">Design and develop a recommender systems based on latest AI (LLM) advances for personalized food items and user experience.	
Researcher Assistant	Tampere University, Finland
RESEARCH & DEVELOPMENT	
2020 - 2021	
<ul style="list-style-type: none">Cloud Architecture: Developing and researching new cloud architecture for efficient software deployment.	

Awards

Best Poser Awards, MediaFutures Annual Meetings	2024
Fu-midler research grant, University of Bergen (21,000 NOK)	2024
Research abroad grant, Univeristy of Bergen (35,000 NOK)	2024
MediaFutures travel grant (30,000 Nok)	2023

Community Service

Program Committee

ACM UMAP 2024, 2025

- Reviewing and discussing the new contributions of papers related to personalization and user modeling.

Proceeding & Video Co-chair

ACM RecSys 2024


- Managed the production pipeline for digital conference content, including coordinating with authors, ensuring timely delivery of camera-ready papers, and overseeing video content creation and publishing.

Student Volunteer

ACM RecSys Summer School,
Singapore 2023, Bari, Italy 2024

- Organization committee of recommender system summer school.

Hobbies

Hiking, running, Tennis, Self Development, Cooking, Photography (Flickr)

List of Publications

2025	Ayoub El Majjodi , Alain Starke, Alessandro Petruzzelli, Cataldo Musto, Christoph Trattner Nudging Healthy Choices: Leveraging LLM-Generated Hashtags and Explanations in Personalized Food Recommendations . Under review, UMAP '25: 33rd ACM Conference on User Modeling, Adaptation and Personalization, NY, USA
	Ayoub El Majjodi , Alain Starke, Christoph Trattner Integrating Digital Food Nudges and Recommender Systems: Current Status and Future Directions . Under review, In IEEE access, 2025
2024	Ayoub El Majjodi , Sohail Ahmed Khan, Alain Starke, Mehdi Elahi, Christoph Trattner Advancing Visual Food Attractiveness Predictions for Healthy Food Recommender Systems In HealthRecSys '24, October 18th, 2024, Bari, Italy
2023	Nabil El Ioini, Ayoub El Majjodi , David Hästbacka, Tomas Cerny, Davide Taibi Unikernels Motivations, Benefits and Issues: A Multivocal Literature Review . In 3rd Eclipse Security, AI, Architecture and Modelling Conference on Cloud to Edge Continuum (ESAAM 2023), October 17, 2023, Ludwigsburg, Germany
	Ayoub El Majjodi , Alain Starke, Mehdi Elahi, Christoph Trattner The Interplay between Food Knowledge, Nudges, and Preference Elicitation Methods Determines the Evaluation of a Recipe Recommender System . In IntRS '23: Joint Workshop on Interfaces and Human Decision Making for Recommender Systems, September 18, 2023, Singapore
2022	Ayoub El Majjodi , Alain Starke, Christoph Trattner, Nudging Towards Health? Examining the Merits of Nutrition Labels and Personalization in a Recipe Recommender System . In UMAP '22: 30th ACM Conference on User Modeling, Adaptation and Personalization, Barcelona, Spain
	Alain Starke, Ayoub El Majjodi , Christoph Trattner, Boosting Health? Examining the Role of Nutrition Labels and Preference Elicitation Methods in Food Recommendation . In IntRS '22: Joint Workshop on Interfaces and Human Decision Making for Recommender Systems, September 22, 2022, Seattle, US
	Giovanni Castiglia, Ayoub El Majjodi , Federica Calò, Yashar Deldjoo, Fedelucio Narducci, Alain Starke, Christoph Trattner, Nudging Towards Health in a Conversational Food Recommender System Using Multi-Modal Interactions and Nutrition Labels . In RecSys '22: 4th Workshop of Knowledge-aware and Conversational Recommender Systems, Seattle, WA, USA
2020	Ayoub El Majjodi , Alain Starke, Christoph Trattner, Towards Generating Personalized Country Recommendation . In UMAP '20: 28th ACM Conference on User Modeling, Adaptation, and Personalization, Genova, Italy

2019

Ayoub El Majjodi, Abderzzak Boumahdi, Mustapha Chakli, Mahmoud EL Hamlaoui, **Big Data Project Management**. DOI: 10.13140/RG.2.2.18399.18089

Ayoub El Majjodi, Abderzzak Boumahdi, Mustapha Chakli, Mahmoud EL Hamlaoui, **NoSQL Model Quality Assessment Document-oriented databases, CouchDB**. DOI:10.13140/RG.2.2.31820.95369