Anas Abdelhakmi

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EDUCATION

National University of Singapore Singapore
Ph.D candidate in Operations Research (GPA 4.8/5.0) 08/2021 - Present
- Advisors: Andrew Lim, Jussi Keppo
- Thesis: Robust Learning and Hedging, and Data-Driven Decision Making

University Mohammed VI Polytechnic (UM6P) Benguerir, Morocco
MSc and BSc in Industrial Engineering & Management, with minor in Supply Chain Management (GPA 4.0/4.0) 09/2018 - 09/2021
- Coursework includes: *Operations Research, Advanced Probabilities, Statistics, Economics.*

University Mohammed VI Polytechnic (UM6P) Benguerir, Morocco
Classes préparatoires: Mathematics, Physics, Computer Science (GPA 4.0/4.0) 09/2016 - 07/2018
- Intensive undergraduate programme with focus on advanced mathematics, physics, and computer science
- Rank: $1^{st}/22$

RESEARCH INTERESTS

Methodologies: Data-driven Decision-making, Machine Learning, Stochastic Optimization, Optimal Control, Reinforcement Learning, Sequential Decision-making.
Applications: Financial Engineering, Inventory Management, Recommendation Systems.

PAPERS

Under-revision Journal Papers

1. **A Multi-Period Black-Litterman Model** with Andrew Lim
   Under revision in *Operations Research*

Working Papers

1. **Personalized Learning in Partially Observable Environments** with Jussi Keppo and Hong Ming Tan
   Ongoing work

2. **Bayesian Inventory Control with Unobserved Lost Sales and Hedging Opportunities** with Andrew Lim
   Ongoing work

3. **Dynamic Asset Pricing and Allocation with Expert Forecasts** with Andrew Lim
   Ongoing work

INDUSTRY EXPERIENCE

OCP Group Casablanca, Morocco
Consultant Intern 04/2021 - 07/2021
- Developed a data-driven supply chain decision tool to model the group's supply network, helping to simulate and optimize scenarios

AgriEdge (Business Unit of OCP Group) Benguerir, Morocco
Data Science Intern 06/2020 - 09/2020
- Developed a robust decision-making framework for harvest control, combining deep segmentation using a regional convolutional neural network (R-CNN) and frame to frame tracking

TEACHING EXPERIENCE

National University of Singapore, Teaching Assistant Singapore
DBA3803 - Predictive Analytics in Business 01/2024 - 05/2024
BDC6112 - Stochastic Processes 08/2022 - 12/2022

EMINES - UM6P, Tutor Benguerir, Morocco
Tutored undergraduate students in advanced mathematics and physics 02/2019 - 06/2019
Tutored undergraduate students and underprivileged high school students in applied robotics 01/2019 - 03/2021

AIESEC, Robotics Teacher Volunteer Volos, Greece
Tutored underprivileged high school students in applied robotics Summer 2019

Leadership Activities

FinHack Club   Benguerir, Morocco
Co-Founder and President   09/2020 - 03/2021
- Founded the FinHack Club, to spearhead the organization and execution of hackathons focusing on fintech innovations in Morocco
- Developed strategic partnerships with industry leaders to enhance participation and sponsorships

EMINES Technology Club   Benguerir, Morocco
President   06/2019 - 09/2020
- Taught Robotics and Computer Science on a weekly basis
- Supervised various Robotics projects, including: Mars rover, Drones, Autonomous robots, and 3D Printers
- Organized the 'National Robotics Competition' with more than 150 participants from all over the country

Service and Outreach

Session Chair: INFORMS Annual Meeting 2023.
Conference Organization: Analytics for X 2023, organized by NUS in Chongqing, China.

Selected Talks

A Multi-Period Black-Litterman Model

- INFORMS, Applied Probability Society, June 2023, Nancy, France

- Mathematics & Decision Conference at UM6P, December 2023, Benguerir, Morocco

- IRIS Seminar at UM6P, December 2023, Benguerir, Morocco

Personalized Learning in Partially Observable Environments

- INFORMS Annual Meeting, October 2023, Phoenix, Arizona, US

Skills

Languages: *Fluent:* English. *Native:* French, Arabic.
Programming: Python, Java, JavaScript, C / C++, SQL PHP, HTML, CSS.
Software Tools: PyTorch, TensorFlow, Gurobi, Flask.

Outside Activities

Beach Volleyball, Diving, Biking.

References

Professor Andrew Lim
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Professor Jussi Keppo
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