

**MAROUANE NEJJAR**  
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## EDUCATION

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**MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SLOAN SCHOOL OF MANAGEMENT** Cambridge, MA  
*Candidate for Master of Business Analytics, Operations Research Center, August 2024* 2023 - Present

- Coursework: Inference and Information, Optimization, Machine Learning, Advanced Analytics, Deep Learning, New Entreprises, Power and Negotiation
- Optimization Project: Optimized groceries shopping using scrapped Whole Food data resulting in 53% cost reduction (Julia)
- Research project under supervision of Prof. Bertsimas: Analyzed 19M health insurance claims with PySpark and Developed rules for detecting outlier claims in healthcare insurance payors with Optimal Classification Trees (Python, Julia)

**CENTRALESUPÉLEC - PARIS SACLAY UNIVERSITY** Paris, France  
*Candidate of Master of Engineering, Bachelor of Engineering, August 2024, Top 10% (GPA 3.91/4)* 2020 - Present

- Computer Vision Project: Automatic waste sorting by training a ResNet50 model, 92% accuracy on the test set
- Coursework: Probability Theory and Partial Differential Equations, Stochastic Calculus, Statistics and Machine Learning, Network and Security, Algorithm and Complexity
- Teaching Assistant in Measure Theory, Probability Theory and Partial Differential Equations
- Leadership: Member of Board of International Students Office, organized integration week for 150 international students

**LYCÉE LOUIS LE GRAND** Paris, France  
*Preparatory classes for highly selective entrance exams to French Grandes Écoles, GPA: 4.00/4.00* 2018 - 2020

- Intensive preparation for national competitive entrance examinations to France's best Science and Engineering schools

## TECHNICAL SKILLS

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- Python (Pandas/NumPy/Scikit-Learn/PyTorch/TensorFlow/PySpark) | R | Julia (JuMP/Gurobi/Interpretable AI) | Latex | Git | SQL | JavaScript | Slurm | Linux | OCaml
  - Optimization | Statistics | Probabilistic Modeling | Bayesian Inference | Deep Learning | NLP | Time Series | Computer Vision

## EXPERIENCE

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**MASSACHUSETTS INSTITUTE OF TECHNOLOGY / LINEAGE LOGISTICS** San Francisco, CA  
*Data Science NLP Intern (Capstone Project Member)* Feb-Aug 2024

- Designing an industrial-NLP pipeline to structure text from data warehouses to make data ready for network optimization
- Developing architecture using Bert and Transformer model to resolve entities over 11M orders with 97% accuracy (Pytorch)

**QUANT CUBE TECHNOLOGY** Paris, France  
Alternative Data and Signal Processing Feb-Aug 2023

**Research Scientist Intern**

- Engineered package implementing CUSUM Test for stationarity in time series, proposed as an indicator for clients (Python)
- Explored Literature review on Dynamic Factor Model (DFM) and mixed frequency problem to create innovative approach to tackle multi frequency problem for DFM; allows for more granular data for clients

**PARIS DIGITAL LAB** Paris, France  
*Data Science Intern: Three Two-month projects* 2022-2023

- Built a pipeline aiming to identify failures on electric cars components utilizing several ML and Deep Learning methods for PSA Group; improved accuracy by 26% and reduced costs by 14% (Python)
- Designed and developed MVP of Job Board for 2000 talents of Paris-Saclay University inspired by dating apps (JavaScript)
- Developed Recommendation System using collaborative filtering for Side by Randstad recruitment application helping new user to find first mission to improve retention (Python)

## ADDITIONAL INFORMATION

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- Languages: Moroccan Arabic (native), French (fluent), Traditional Arabic (basic)
  - Awards: won gold in Boxing at TOSS (2023) in France for -64kg category
  - Interests: Innovative Cook, Fitness Fan, Struggling Latin Dancer