

# Sami Ben Brahim

- Email: sami DOT benbrahim AT mail DOT concordia DOT ca
  - [LinkedIn](#)
  - [Github](#)
  - [Web](#)
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## Education

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**PhD student: Information and Systems Engineering** Sep. 2023 – ongoing  
Concordia University Montreal, Canada  
Supervisors: Nizar Bouguila and Manar Amayri

**Master of Engineering: Information Processing and Complexity of the Living** Sep. 2020 – Nov. 2021  
ENIT Tunis, Tunisia  
Thesis: Natural Gas Peak Demand Forecasting in Tunisia  
*Note: In Tunisia, the Master of Engineering is a one-year program that can be completed in parallel with the final year of the Bachelor of Engineering. The Bachelor's and Master's theses are typically the same.*

**Bachelor of Engineering: Modeling for Industry and Service (MIndS)** Sep. 2018 – Sep. 2021  
ENIT Tunis, Tunisia

## Research Interests

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Time Series Forecasting, Energy Load Forecasting, Representation Learning, Machine Learning.

## Experience

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**Teaching Assistant** Jan. 2024 – ongoing  
Concordia University Montreal, Canada

- Teaching Assistant for the following courses: COMP 6721, COMP 432, COMP 425, INSE 6180, COMP 233, COEN 243, ENCS 282.
- Main tasks: leading tutorials, providing technical support to students, and grading assignments/projects.

**Lecturer** Nov. 2024  
Concordia University Montreal, Canada

- Delivered a lecture on Time Series Forecasting as part of INSE 6180 course.

**Research Assistant** Apr. 2022 – Mar. 2023  
Africa Business School Rabat, Morocco

- Tasks: bibliographic research, implementation of optimization algorithms, course preparation, and grading.

**Research Intern** Dec. 2021 – Marc. 2022  
Chair of Energy System Economics, RWTH Aachen University Aachen, Germany

- Task: clustering of households based on heat demand; Analysis of building data.

## Publications

[Google Scholar](#)

**One-day-ahead electricity load forecasting of non-residential buildings using a modified Transformer-BiLSTM adversarial domain adaptation forecaster.** Apr. 2025  
– Sami Ben Brahim, Manar Amayri, Nizar Bouguila.

**Long-term natural gas peak demand forecasting in Tunisia Using machine learning** May. 2022  
– Sami Ben Brahim, Mohamed Slimane.

## Relevant Courses & Certificates

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- IFT 6135 Representation Learning (Instructor: Aaron Courville)
- COMP 6321 Machine Learning (Instructor: Yang Wang)
- INSE 6180 Security and Privacy Implications of Data Mining (Instructor: Nizar Bouguila)
- Deep Learning Specialization (online, deeplearning.ai)
- Machine Learning (online, Stanford University)

## Skills

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- **Languages:** Python, MATLAB, C++, R, LaTeX.
- **Libraries:** Pytorch, TensorFlow, Keras, Scikit-Learn, Numpy, Pandas, OpenCV.
- **Technologies:** GitHub.

## Languages

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Arabic (Native), English (Fluent), French (Fluent).

## Honours & Scholarships

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**Erasmus+ ICM Scholarship**

2021

Exchange semester at *Rouen University* — *Awarded but not undertaken due to COVID-19 travel restrictions*