Yassine Chemingui

Curriculum Vitae

School of Electrical Engineering and Computer Science
Washington State University
Pullman, WA, USA

Personal Webpage
yassine.chemingui@wsu.edu

Research Summary

I am interested in research on **Offline Optimization** and **Reinforcement Learning**, with a focus on developing practical methods that enable safe, efficient, and trustworthy decision-making from limited data, covering the following areas:

- **Offline Model-Based Optimization**
  - Developing surrogate models to approximate expensive or unknown objective functions.
  - Designing efficient strategies for solving high-dimensional and complex design problems.
  - Applications: Nanoporous materials discovery and Hardware design
- **Offline Safe Reinforcement Learning**
  - Incorporating safety constraints to ensure reliable policy deployment.
  - Exploring robust and risk-aware policy optimization with offline data.
  - Applications: Smart grid management and Clinician-in-the-Loop

Education

Ph.D., Computer Science 2022 – Present
Washington State University *Pullman, WA, USA*
Advisor: Prof. Jana Doppa
***Thesis**: Advances in Offline Decision-Making: Black-box Optimization, Safe Reinforcement Learning, and Policy Comparison from Logged Data.*

Polytechnician Engineer Degree 🎓 (Graduated with Excellence) 2015 – 2018
Tunisia Polytechnic School *Tunis, Tunisia*
***Major**: Signals & Systems*
***Thesis**: Reinforcement Learning Approach for Inventory Replenishment.*

University First Cycle Studies 🎓 (Top 2% Nationally) 2013 – 2015
Preparatory School For Engineering Studies of Tunis (IPEIT) *Tunis, Tunisia*
***Major**: Mathematics-Physics*

Awards and Honors

- **Outstanding Research Assistant in Computer Science Award** 2024-2025
  School of Electrical Engineering and Computer Science, Washington State University
- **Outstanding Research Assistant in School of EECS Award** 2024-2025
  Voiland College of Engineering and Architecture, Washington State University
- **AAAI Student Scholarship and Volunteer Program** 2025
  Association for the Advancement of Artificial Intelligence Conference
- **NeurIPS Top Reviewer Award** 2024
  Conference on Neural Information Processing Systems
- **Mahmoud M. Dillsi Family Graduate Fellowship** 2023-2024
  School of Electrical Engineering and Computer Science, Washington State University
- **Alfred Suksdorf Fellowship** 2023-2024
  Voiland College of Engineering and Architecture, Washington State University

- **Tunisia National Rank 49 (Top 2%)** 2015
  Qualification Exam for Engineering Schools Entrance

- **Tunisia National Rank 379 (Top 2.5%)** 2013
  Tunisian Mathematics Baccalaureate

Professional Appointments

Research Assistant 2022 – Current
EECS Department - Washington State University, USA,
- Offline Safe Reinforcement Learning.
- Offline Model Based Black-box Optimization.

Machine Learning Fellow 2021
Fellowship AI, USA,
- Automation of domain specific chat-bots.
- Integration of RASA with Facebook's Blenderbot.

Research Assistant 2019 – 2021
Department of Electrical Engineering - Qatar University, Qatar
- Development of reinforcement learning-based energy management system for school buildings.
- Development of deep learning-based load identification module.

Applied Mathematics Engineer 2018 – 2019
ADAGOS, Tunisia
- Develop machine learning solutions based on company's neural networks tools.
- Work on internal research projects.

Graduation Project Internship 2018
Infor, Tunisia
- Development of reinforcement learning-based inventory replenishment model.

Research and Development Intern 2017
Mass Analytics, Tunisia
- Intelligent crawling via text mining techniques with topic modeling of outputs.

Publications

1. [**NeurIPS'25**] Yassine Chemingui, Aryan Deshwal, Alan Fern, Thanh Nguyen-Tang, Janardhan Rao Doppa. **O3SRL: Online Optimization for Offline Safe Reinforcement Learning**. Conference on Neural Information Processing Systems (NeurIPS), 2025.
2. [**AAAI'25**] Yassine Chemingui, Aryan Deshwal, Honghao Wei, Alan Fern, Janardhan Rao Doppa. **Constraint-Adaptive Policy Switching for Offline Safe Reinforcement Learning**. Association for the Advancement of Artificial Intelligence Conference (AAAI), 2025 (**Oral**).
3. [**AAAI'24**] Yassine Chemingui, Aryan Deshwal, Trong Nghia Hoang, and Janardhan Rao Doppa. **Offline Model-based Black-Box Optimization via Policy-Guided Gradient Search**. Association for the Advancement of Artificial Intelligence Conference (AAAI), 2024.
4. [**EECSS'21**] Yassine Chemingui, Adel Gastli and Mahdi Houchati. **Deep Learning-based Electric Appliances Identification from their Switching-On Current Waveforms**. 7th World Congress on Electrical Engineering and Computer Systems and Sciences s (EECSS), 2021.
5. [**Energies'20**] Yassine Chemingui, Adel Gastli and Omar Ellabban. **Reinforcement Learning-Based School Energy Management System**. Energies 2020.
6. [**ICASET'20**] Yassine Hchaichi, Yassine Chemingui, and Mariem Affes. **A Policy Gradient Based Reinforcement Learning Method for Supply Chain Management**. 4th International Conference on Advanced Systems and Emergent Technologies (ICASET), 2020.

Papers Under Review

1. **[ICLR'26]** Yassine Chemingui, Aryan Deshwal, Thanh Nguyen-Tang, Alan Fern, Janardhan Rao Doppa. **Constraint-Aware Reward Relabeling for Offline Safe Reinforcement Learning**. International Conference on Learning Representations (ICLR), 2026.

2. **[AAAI'26]** Azza Fadhel, Yassine Chemingui, Minh Hoang, Aryan Deshwal, Trong Nghia Hoang, and Janardhan Rao Doppa. **Surrogate Modeling for Data-Driven Nanoporous Materials Discovery**. Association for the Advancement of Artificial Intelligence Conference (AAAI), 2026.

Academic and Professional Service

Program Committee Member at Top AI and ML Conferences

- Association for the Advancement of Artificial Intelligence (**AAAI**) 2026
- Conference on Neural Information Processing Systems (**NeurIPS**) 2025
- International Conference on Machine Learning (**ICML**) 2025
- International Conference on Learning Representations (**ICLR**) 2025
- Artificial Intelligence and Statistics (**AISTATS**) 2025
- Association for the Advancement of Artificial Intelligence (**AAAI**) 2025
- Conference on Neural Information Processing Systems (**NeurIPS**) — *Top Reviewer* 2024
- Association for the Advancement of Artificial Intelligence (**AAAI**) 2024

Tecahing Assistant

- CptS 437: Introduction to Machine Learning Fall 2023

Professional References

- **Prof. Jana Doppa**
  Huie-Rogers Endowed Chair Professor of Computer Science
  School of Electrical Engineering and Computer Science,
  Washington State University
  jana.doppa@wsu.edu

- **Prof. Alan Fern**
  Professor of Computer Science and Associate Head of Research
  School of Electrical Engineering and Computer Science,
  Oregon State University
  alan.fern@oregonstate.edu

- **Prof. Aryan Deshwal**
  Assistant Professor of Computer Science
  Department of Computer Science and Engineering,
  University of Minnesota
  adeshwal@umn.edu

Languages

- Arabic: Native
- English: Professional
- French: Professional
- German: Basic