

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

🌐 [Personal Webpage](#)  
✉ [yassine.chemingui@wsu.edu](mailto:yassine.chemingui@wsu.edu)

## RESEARCH SUMMARY

My work focuses on **offline decision-making**: learning to optimize and act safely from logged data when new experiments are costly. I build methods that turn static datasets into effective **optimization models** and **control policies**, motivated by the need for robust and safe AI in domains like materials discovery, healthcare, and smart grids.

- **Offline Safe Reinforcement Learning**: Ensuring safety constraints, optimizing robust policies from limited data, and enabling risk-aware decision-making. For fixed budgets, we used a minimax formulation with bandit-style updates; and for variable test-time constraints, we designed adaptive policies that switch at deployment without retraining.
- **Offline Model-Based Optimization**: Developing surrogate models and efficient search strategies for high-dimensional design problems. This includes recasting offline optimization as an RL problem to guide the search, and designing search-bias-guided surrogates that better align the model's ranking with the optimization goal.

## EDUCATION

**Ph.D., Computer Science** 2022 – Present  
*Washington State University*  
*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*  
*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)*  
*Major: Mathematics-Physics*

## AWARDS AND HONORS

- **Edmund O. Schweitzer III Scholarship** 2025-2026  
*School of Electrical Engineering and Computer Science, Washington State University*
- **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

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- 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

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1. [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.
2. [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.
3. [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**).
4. [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.
5. [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.

6. [Energies'20] Yassine Chemingui, Adel Gastli and Omar Ellabban. **Reinforcement Learning-Based School Energy Management System**. Energies 2020.
7. [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.

## ACADEMIC AND PROFESSIONAL SERVICE

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### Program Committee Member at Top AI and ML Conferences

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| • International Conference on Learning Representations ( <b>ICLR</b> )                         | 2026 |
| • Association for the Advancement of Artificial Intelligence ( <b>AAAI</b> )                   | 2026 |
| • Conference on Neural Information Processing Systems ( <b>NeurIPS</b> )                       | 2025 |
| • International Conference on Machine Learning ( <b>ICML</b> )                                 | 2025 |
| • International Conference on Learning Representations ( <b>ICLR</b> )                         | 2025 |
| • Artificial Intelligence and Statistics ( <b>AISTATS</b> )                                    | 2025 |
| • Association for the Advancement of Artificial Intelligence ( <b>AAAI</b> )                   | 2025 |
| • Conference on Neural Information Processing Systems ( <b>NeurIPS</b> ) — <i>Top Reviewer</i> | 2024 |
| • Association for the Advancement of Artificial Intelligence ( <b>AAAI</b> )                   | 2024 |

### Tecahing Assistant

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|--|-----------|
| • CptS 437: Introduction to Machine Learning | Fall 2023 |
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## PROFESSIONAL REFERENCES

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### • 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](mailto: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](mailto:alan.fern@oregonstate.edu)

### • Prof. Aryan Deshwal

Assistant Professor of Computer Science  
*Department of Computer Science and Engineering,*  
*University of Minnesota*  
 ✉ [adeshwal@umn.edu](mailto:adeshwal@umn.edu)

## LANGUAGES

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