

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

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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

- 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. [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.

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.

ACADEMIC AND PROFESSIONAL SERVICE

Program Committee Member at Top AI and ML Conferences

• International Conference on Learning Representations (ICLR)	2026
• 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) — <i>Top Reviewer</i>	2024
• Association for the Advancement of Artificial Intelligence (AAAI)	2024

Tecahing Assistant

• CptS 437: Introduction to Machine Learning	Fall 2023
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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
- French: Professional
- English: Professional
- German: Basic