

# Areski Himeur

PHD IN COMPUTER SCIENCE — ARTIFICIAL INTELLIGENCE · FIXED-TERM LECTURER AND RESEARCHER

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## Education

### PhD Student - Constraint Acquisition

LIRMM, University of Montpellier, France

REDUCING DEPENDENCY ON PRIOR KNOWLEDGE IN CONSTRAINT ACQUISITION

2021 - 2025.

**Supervised by Christian Bessiere and Clément Carbonnel — Defended on December 3, 2025.**

We propose novel passive constraint acquisition methods that operate without any prior knowledge and with a minimum of examples, while producing models that tend to be interpretable and to generalize well to unseen data.

### Master's Degree

University of Montpellier, France

THEORETICAL COMPUTER SCIENCE

2019 - 2021

Algorithm design, artificial intelligence, optimisation, graph theory, computability, complexity, randomized algorithm, logic, ...

### Engineering and Research Education

FIGURE NETWORK PROGRAM MASTER COURSE OF ENGINEERING [CMI]

2016 - 2021

A program integrating bachelor's and master's studies with a 20% increase in course hours compared to standard degrees.

### Bachelor's Degree

University of Montpellier, France

COMPUTER SCIENCE

2016 - 2019

Mathematics applied to computer science, different programming prisms, numerous languages and techniques.

**International Mobility:** September to December 2018 at the University of Helsinki, Finland.

## Experience

### Fixed-term Lecturer and Researcher

University of Montpellier

"ENSEIGNANT-CHERCHEUR CONTRACTUEL"

Sept 2025 - Present

- Teaching at the Department of Telecommunications, Services and Uses
- Research at the Chroma team (INSA Lyon and INRIA)

### Fixed-term Lecturer and Researcher (ATER)

University of Montpellier

ATER AT THE FACULTY OF SCIENCES AND LIRMM

Sept 2024 - August 2025

### Research Internship

LIRMM, University of Montpellier

CONSTRAINT PROGRAMMING AND NEURAL NETWORK

February - June 2021

**Supervised by Christian Bessiere, Clément Carbonnel and Nadjib Lazaar.**

Research on machine learning at the intersection of neural networks and constraint programming.

### Research Internship

LIRMM, University of Montpellier

MULTI-AGENT ARGUMENTATION GRAPHS

June 2020

**Supervised by Madalina Croitoru.**

Research on multi-agent weighted bipolar argumentation frameworks.

### Internship - Fullstack Developer

Hawk Platform

REAL-TIME AUCTION PLATFORM MONITORING TOOL

May - August 2019

- Development of a Golang API and a React UI.
- Continuous integration and deployment with tests: Gitlab CI and Docker.

## Publications

### Learning Compact Representations of Constraint Networks

ECAI-2025

IN THE PROCEEDINGS OF THE 27TH EUROPEAN CONFERENCE ON ARTIFICIAL INTELLIGENCE (TO APPEAR).

Christian Bessiere, Clément Carbonnel, Areski Himeur (*alphabetical order*).

### Learning Constraint Networks over Unknown Constraint Languages

IJCAI-2023

IN THE PROCEEDINGS OF THE THIRTY-SECOND INTERNATIONAL JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE.

Christian Bessiere, Clément Carbonnel, Areski Himeur (*alphabetical order*).

## Projects

### Bioinformatics Project

ISEM - Montpellier Institute of Evolutionary Sciences

ALGORITHMS FOR ORDER CONSENSUS.

Sept 2019 - May 2020

Supervised by **S  verine B  rard**.

Design of an FPT algorithm for gene adjacency and implementation in C++.

- GitHub Project: <https://github.com/Hareski/ConsensusOrdres>

### Project

Collaboration with the Laboratory of Molecular Endocrinology of Montpellier

GENERATION OF MEALS UNDER NUTRITIONAL CONSTRAINTS.

Sept 2018 - June 2019

Supervised by **Eric Bourreau**.

- Development with constraint programming of a customisable generator of meals with a website (Jakarta/Java).
- GitHub Project: <https://github.com/Hareski/Medimenu>

## Teaching

500 hours to diverse audiences (from undergraduate to master's level) in university institutes, engineering schools, and faculties. Taught a wide range of modules including AI, algorithms, programming, and systems.

### INSA Lyon - Department of Telecommunications, Services and Uses

Villeurbanne

FIXED-TERM LECTURER AND RESEARCHER - 116H ETD

2025-2026

Course Manager of a part of *AI for Telecommunications* (Design of lectures, labs, and exams).

- Lectures/Practical work/Tutorials on *AI for Telecommunications* (Deep Learning, RL, Transformers) - 4th year Engineer
- Tutorials on *System Architecture* - 3rd year Engineer (TP)
- Tutorials and practical work on *Parallel and Concurrent Programming* - 3rd year Engineer
- Tutorials and practical work on *C Programming* - 3rd year Engineer
- Tutorials on *Algorithmics* - 3rd year Engineer

### Faculty of Sciences - Computer Science Department

Montpellier

NON-TENURED TEACHING AND RESEARCH FELLOW (ATER) - 192 HOURS

2024-2025

- Practical work on *Development and DevOps* (JAVA, Git, Selenium, Cucumber, SonarSource, CI, Docker) - 3rd year L3
- Tutorials and practical work on *Functional Programming* (Ocaml) - 1st year L1
- Tutorials and practical work on *Deterministic Automata* - 1st year L1
- Tutorials and practical work on *Object-Oriented Modeling* (Java and UML) - 1st year PEIP (preparatory course)
- Practical work on *Multitasking and Concurrency*: Networking, Threads, and Inter-Process Communication - 3rd year L3
- Tutorials on *Complexity, Computability, Decidability* - 3rd year L3
- Practical work on *Professional Skills* (Redaction, Presentation, etc.) - 3rd year L3

### Polytech (Engineering School)

Montpellier

TEACHING MISSION - 64 HOURS

2023-2024

Creation of course materials (lectures, tutorials, practical work, assessments) on the basis of previous resources.

- Lectures/Practical work/Tutorials on *Algorithm Complexity Analysis* - 3rd year of engineering school
- Lectures/Practical work/Tutorials on *Reduction and Dynamic Programming* - 5th year of engineering school
- Lectures/Practical work/Tutorials on *Fullstack with Golang* (Web, Algo, Concurrency) - 3rd year of engineering school

### Faculty of Sciences - Computer Science Department

Montpellier

TEACHING MISSION - 64 HOURS

2022-2023

- Tutorials and practical work on *System Programming in Bash, Python and C* - 1st year PEIP (preparatory course)
- Tutorials and practical work on *Advanced Object-Oriented Modeling* (JAVA, UML, Project Management) - 2nd year L2

### IUT - University Institutes of Technology of Montpellier

Montpellier

TEACHING MISSION - 64 HOURS

2021-2022

- Tutorials and practical work on *Operating Systems Principles* - 2nd year
- Tutorials and practical work on *Network Architecture and Development* - 1st year

## Activities and Volunteering

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### Volunteering at Conferences

- IJCAI 2023 Volunteer - 32nd International Joint Conference on Artificial Intelligence, *Macao* - 2023
- CP 2021 Volunteer - 27th International Conference on Principles and Practice of Constraint Programming, *Online* - 2021
- ROADEF 2020 Volunteer - 21st French Conference on Operations Research and Decision Support, *Montpellier* - 2020

### Summer School Experience

- ESSAI & ACAI - European Summer School on Artificial Intelligence and Advanced Course on Artificial Intelligence, *Ljubljana* - 2023
- SAT/SMT/AR/CP - Satisfiability, Satisfiability Modulo Theories, Automated Reasoning and Constraint Programming, *Haifa* - 2022