

Elena Yan

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About

Elena Yan is currently a second-year Ph.D. student in Computer Science at Mines Saint-Étienne, France, supervised by Olivier Boissier, Jaime S. Sichman, and Luis G. Nardin. Her research interests are centered around multi-agent systems and engineering methodologies, with the aim of deploying regulated, adaptive, and trustworthy systems.

Education

MINES Saint-Étienne

Ph.D. in Computer Science

Saint-Étienne, France

Nov 2023 – Oct 2026

- *Thesis:* Self-Adaptive Regulation Mechanisms for a Trustworthy and Sustainable Industry of the Future
- *Supervisors:* [Olivier Boissier](#), [Jaime S. Sichman](#), and [Luis G. Nardin](#)
- *Keywords:* Multiagent Systems, Normative Systems, Responsible AI, Industry of the Future
- *Funding:* ANR/FAPESP Normative Artificial Intelligence for regulating MANufacturing - [NAIMAN Project](#) (ANR-22-CE23-0018-01, FAPESP 2022/03454-1)

University of Bologna, Campus of Cesena, Italy

Master's Degree in Computer Science and Engineering

Cesena, Italy

Sep 2021 – Oct 2023

- *Graduation grade:* 110/110 with Honors
- *Thesis:* A Multi-Level Explainability Framework for BDI Multi-Agent Systems amslaurea.unibo.it/29644 [↗](#)
- *Supervisors:* [Alessandro Ricci](#), [Jomi F. Hübner](#), and Samuele Burattini
- *Keywords:* Explainable AI, BDI Agents, Debugging

University of Bologna, Campus of Cesena, Italy

Bachelor's Degree in Computer Science and Engineering

Cesena, Italy

Sep 2018 – Jul 2021

- *Graduation grade:* 98/110
- *Thesis:* Telemedicine and Wearable Computing to Support Healthcare Professionals in Stroke Diagnosis: the TeleStroke Project as a Case Study amslaurea.unibo.it/23876 [↗](#) (Italian)
- *Supervisors:* [Alessandro Ricci](#) and [Angelo Croatti](#)
- *Keywords:* Wearable Computing, Smartglasses, Telemedicine

Activities

Presentations

- A Unified View on Regulation Management in Multi-Agent Systems. COINE@AAMAS2025.
- Engineering Inter-Agent Explainability in BDI Agents. EXTRAAMAS@AAMAS2025.
- A Normative Agent-Centric Approach to Regulate Manufacturing Process. SeReCo 2024.
- An Agent-Centric Perspective on Norm Enforcement and Sanctions. WOA 2024
- An Agent-Centric Perspective on Norm Enforcement and Sanctions. COINE@AAMAS2024
- Self-adaptive Regulation Mechanisms for a Trustworthy and Sustainable Industry of the Future. IMT Colloque “Responsible Industry of Future”
- Towards a Multi-Level Explainability Framework for Engineering and Understanding BDI Agent Systems. WOA 2024.

Teaching

- 2025. Tutor Integrating and Engineering Intelligent Systems, 3rd year graduate course in Science and

Engineering (Ingénieur Civil des Mines), MINES Saint-Étienne, Saint-Étienne.

- 2025. Tutor Multi-Agent Coordination, 2nd year Master Cyber-Physical Social Systems, MINES Saint-Étienne, Saint-Étienne.
- 2024 – 2025. Tutor Object-Oriented Programming, 1st year, graduate course in Science and Engineering (Ingénieur Civil des Mines), MINES Saint-Étienne, Saint-Étienne.
- 2024 – 2025. Tutor Industrial Risk and Accident Project - Modern Languages, 1st year graduate course in Science and Engineering (Ingénieur Civil des Mines), MINES Saint-Étienne, Saint-Étienne.

Organization


- 2025 Summer School on Technologies for Trust, Interoperability, Autonomy, and Resilience in Industry 4.0 ([AI4Industry](#) )

Review

- PC Member of Italian National Workshop “26th Workshop From Objects to Agents” WOA 2025
- Sub-reviewer in 27th European Conference on Artificial Intelligence ECAI 2024

Publications

Journals

- **Elena Yan**, Samuele Burattini, Jomi F. Hübner, and Alessandro Ricci A Multi-Level Explainability Framework for Engineering and Understanding BDI Agents. *Autonomous Agents and Multi-Agent Systems* **39**, 9 (2025). doi.org/10.1007/s10458-025-09689-6 .

Conference Proceedings

- **Elena Yan**, Luis G. Nardin, Olivier Boissier, and Jaime S. Sichman. A Regulation Adaptation Model for Multi-Agent Systems. *28th European Conference on Artificial Intelligence ECAI-2025* – Accepted.
- Katharine Beaumont*, **Elena Yan***, and Rem Collier. Towards an Ontology for Uniform Representations of Agent State for Heterogeneous Inter-Agent Explanations *2nd Workshop on Hypermedia Multi-Agent Systems co-located with ECAI 2025* – Accepted.
- **Elena Yan**, Luis G. Nardin, Olivier Boissier, Jaime S. Sichman, and Jomi F. Hubner. Perspectives on regulation adaptation in multi-agent systems: from agent to organization centric and beyond. *In Workshop-School on Agents, Environments, and Applications WESAAC 2025* – Accepted.
- Katharine Beaumont, **Elena Yan**, Samuele Burattini, and Rem Collier. Agent Toolkits: Explainable Agency in ASTRA. *European Conference on Multi-Agent Systems EUMAS 2025* – Accepted.
- **Elena Yan**, Luis G. Nardin, Olivier Boissier, and Jaime S. Sichman. A Unified View on Regulation Management in Multi-Agent Systems. *International Workshop on Coordination, Organizations, Institutions, Norms and Ethics for Governance of Multi-Agent Systems COINE@AAMAS2025*. coin-workshop.github.io/coin-2025-detroit/papers/paper_6.pdf  – Accepted and Presented.
- Katharine Beaumont, **Elena Yan**, Samuele Burattini, and Rem Collier. Engineering Inter-Agent Explainability in BDI Agents. *International Workshop on EXplainable, Trustworthy, and Responsible AI and Multi-Agent Systems EXTRAAMAS@AAMAS 2025*. – Accepted and Presented.
- **Elena Yan**, Luis G. Nardin, Jomi F. Hübner, and Olivier Boissier. An Agent-Centric Perspective on Norm Enforcement and Sanctions. In Stephen Cranefield, Luis G. Nardin, and Nathan Lloyd, editors, *Coordination, Organizations, Institutions, Norms, and Ethics for Governance of Multi-Agent Systems XVII*, pages 79–99, Cham, 2025. Springer. doi.org/10.1007/978-3-031-82039-7_6 .
- **Elena Yan**, Samuele Burattini, Jomi F. Hübner, and Alessandro Ricci. Towards a multi-level explainability framework for engineering and understanding BDI agent systems. In *Proceedings of the 24th Workshop “From Objects to Agents”*, Roma, Italy, November 6-8, 2023, Rino Falcone, Cristiano Castelfranchi, Alessandro Sapienza, and Filippo Cantucci, editors, CEUR Workshop Proceedings, vol. 3579, CEUR-WS.org, 2023, pp. 216–231. ceur-ws.org/Vol-3579/paper17.pdf .

*Authors marked with * indicate equal contribution.*

Experience

Visiting Ph.D. Student

Federal University of Santa Catarina - Department of Automation and Systems Engineering

Florianópolis

Aug 2025

- Supervisor: [Jomi F. Hübner](#)

Visiting Ph.D. Student

University of São Paulo - Escola Politécnica, Laboratório de Técnicas Inteligentes

São Paulo

Jul 2025 - Oct 2025

- Supervisor: [Jaime S. Sichman](#)

Research Intern

Pervasive Software Lab - PSLAB, University of Bologna

Cesena, Italy

Mar 2021 – May 2021

- Design and development of software components for wearable technology systems applied in healthcare.
- Supervisors: [Alessandro Ricci](#) and [Angelo Croatti](#)

Waitress

Giardino Wu

Forlì, Italy

Sep 2018 – May 2019

Intern

Municipality of Forlì - Traffic Office

Forlì, Italy

Jan 2017 – Feb 2017

Intern

Arte e Ricamo S.r.l.

Forlì, Italy

May 2016 – Jun 2016

Skills

Languages: Chinese (Native/Bilingual), Italian (Native/Bilingual), English (Advanced), French (Intermediary)

Programming Languages: Java, Kotlin, Scala, JavaScript, Python, C++, C, C#, Prolog, Lua.

Technologies and Frameworks: JaCaMo, Android, Node.js, React, Angular, Vue.js, Gradle, Docker, MongoDB, Git

Programming Paradigms: Object Oriented Programming, Functional Programming, Agent Oriented Programming, Logic Programming, Event Driven Programming, Imperative/Procedural Programming

Honors and Awards

Best Paper Award – 24th Workshop “From Objects to Agents” WOA 2023.

2023

First Prize - Competition for the design of the logo for the various fields of application of the Municipality of Forlì.

2018

First Prize - National Art Prize “Iris Versari” 2nd Edition

2018