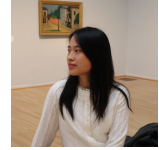# Elena Yan

📍 Saint Etienne, France ✉ elena.yan@emse.fr 📞 +33 7 82 33 42 08 🔗 yan-elena.github.io

in elena-yan-711603271 ⌨ yan-elena

## About

Elena Yan is currently a Ph.D. candidate 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 designing regulated, adaptive, and trustworthy systems.

## Education

**MINES Saint-Étienne** — *Saint-Étienne, France*
*Ph.D. in Computer Science* — *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 — *Cesena, Italy*
*Master's Degree in Computer Science and Engineering* — *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 — *Cesena, Italy*
*Bachelor's Degree in Computer Science and Engineering* — *Sep 2018 – Jul 2021*

- *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

**Teaching**

- 2025 - 2026. Integrating and Engineering Intelligent Systems, 3rd year graduate course in Science and Engineering (Ingénieur Civil des Mines), MINES Saint-Étienne, Saint-Étienne.
- 2024 - 2025. Multi-Agent Coordination, 2nd year Master Cyber-Physical Social Systems, MINES Saint-Étienne, Saint-Étienne.
- 2024 – 2025. Object-Oriented Programming, 1st year, graduate course in Science and Engineering (Ingénieur Civil des Mines), MINES Saint-Étienne, Saint-Étienne.
- 2024 – 2025. 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*, Oct 2025, Bologna, Italy. doi.org/10.3233/FAIA251245 .

○ 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.* ceur-ws.org/Vol-4084/paper1.pdf 

○ **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 *Proceedings of the 19th Workshop-School on Agents, Environments, and Applications*, September 29, 2025, Fortaleza/CE, Brasil. SBC, Porto Alegre, Brasil, 39-50. sol.sbc.org.br/index.php/wesaac/article/view/37527 

○ 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/coine-2025-detroit/papers/paper_6.pdf 

○ Katharine Beaumont, **Elena Yan**, Samuele Burattini, and Rem Collier. Engineering Inter-Agent Explainability in BDI Agents. In: Calvaresi, D., et al. Explainable, Trustworthy, and Responsible AI and Multi-Agent Systems. EXTRAAMAS 2025. Lecture Notes in Computer Science(), vol 15936. Springer, Cham. doi.org/10.1007/978-3-032-01399-6_9 

○ **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 .

### Extended Abstracts

○ **Elena Yan**. Self-Adaptive Regulation Mechanisms for a Trustworthy and Sustainable Industry of the Future. *ECAI 2025 - Doctoral Consortium*, Oct 2025, Bologna, Italy. ecai25doctoralconsortium.github.io/papers/ECAI-2025-DC_paper_45.pdf 

*Authors marked with * indicate equal contribution.*

## Experience

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|---|---|
| **Visiting Ph.D. Student** | *Florianópolis* |
| *Federal University of Santa Catarina - Department of Automation and Systems Engineering* | *Aug 2025* |

○ *Supervisor:* Jomi F. Hübner

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|---|---|
| **Visiting Ph.D. Student** | *São Paulo* |
| *University of São Paulo - Escola Politécnica, Laboratório de Técnicas Inteligentes* | *Jul 2025 - Oct 2025* |

○ *Supervisor:* Jaime S. Sichman

**Research Intern**                                                                  *Cesena, Italy*
*Pervasive Software Lab - PSLAB, University of Bologna*                   *Mar 2021 – May 2021*
  - Design and development of software components for wearable technology systems applied in healthcare.
  - *Supervisors:* Alessandro Ricci and Angelo Croatti

**Waitress**                                                                           *Forlì, Italy*
*Giardino Wu*                                                             *Sep 2018 – May 2019*

**Intern**                                                                             *Forlì, Italy*
*Municipality of Forlì - Traffic Office*                                 *Jan 2017 – Feb 2017*

**Intern**                                                                             *Forlì, Italy*
*Arte e Ricamo S.r.l.*                                                   *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

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|---|---|
| **Best Paper Award** – 19th Workshop-School on Agents, Environments, and Applications WESAAC 2025. | 2025 |
| **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 |