Mireia Yurrita

Curriculum Vitae

Choorstraat 43A
2611 JE Delft, the Netherlands
(+34) 638 91 74 97
m.yurritasemperena@tudelft.nl
mireiayurrita.github.io/

Education

2021–2025 **PhD Degree in Human-Computer Interaction - Delft University of Technology**, *Delft, the Netherlands*.
Department: Knowledge and Intelligence Design.
Supervisors: Alessandro Bozzon, Sylvia Pont.

2018–2020 **M.Sc. Degree in Industrial (Mechanical) Engineering - University of Navarra**, *San Sebastian, Spain*, GPA: 9.28/10.
Thesis Title: Algorithmic Zoning: pro-social incentive implementation using Agent-Based Modeling (graded 10/10).
Master thesis conducted at MIT Media Lab (*Cambridge, USA*).

2014–2018 **B.Sc. Degree in Industrial Technology Engineering - University of Navarra**, *San Sebastian, Spain*, GPA: 9.16/10.
Thesis title: Development of a mathematical model for measuring the vibration isolation capacity of magneto-sensitive rubber (graded 10/10).
Graduated 2nd of the class out of 50 students.

Work Experience

2021–2025 **Doctoral Researcher - Delft University of Technology**, *Delft, the Netherlands*.
Task:
- Researcher at the intersection of human-AI interaction and Algorithmic Fairness, Accountability, and Transparency. I develop conceptual frameworks and conduct empirical studies (quantitative and qualitative) to guide the development of responsible AI systems.
- Early Stage Researcher and Marie Skłodowska-Curie fellow at the Innovative Training Network DCODE
- Teaching assistant. Courses: Crowd Computing (Computer Science Faculty), Machine Learning for Design (Industrial Design Engineering Faculty).

2020–2021 **Hydraulic Design Engineer - Ingeteam**, *San Sebastian, Spain*.
Task: Hydrodynamic design and optimization of mixed-flow turbomachinery.

2019–2020 **Visiting Student - MIT Media Lab**, *Cambridge, USA*.
Task: Development of an algorithmic incentive system on the GAMA Platform -Agent-Based Modeling- as part of the City Scope project in the City Science group.

2017–2018 **Mechanical Engineer Intern - Orona**, *San Sebastian, Spain*.
Tasks:
- Improvement of a calculation tool for vibration isolators on Matlab.
- Creation of a tool to optimise the direction of lift cars on Matlab.
- Design of a mock-up for testing load weighing sensors on Solidworks.

2015–2017 **Student Assistant - University of Navarra**, *San Sebastian, Spain*.

Tasks:

- Collaborator in the Entry Level Mathematics Course for Engineers (Biomedical Engineering and Science Department).
- Study and parameterisation of the Laplace equation on Matlab applied to turbine blades (Fluid Mechanics Department).
- Development of a tool for the calculation of deformation, shear stress and bending moment in beams using the Method of Finite Differences on Matlab (Strength of Materials Department).

Supervision

Master Thesis **Miny Rajiv**, *Elucidating a 'black-box' transcends explaining the algorithm. Exploring Explainable AI (XAI) as a way to address AI implementation challenges in the Dutch public sector*.

Research Elective **Seowoo Nam**, *A design toolkit for multi-stakeholder systematic negotiation of values in algorithmic systems*.

Teaching

Teaching Assistant IOB4-T3 Machine Learning for Design, 2024

Teaching Assistant CS4145 Crowd Computing, 2023, 2024

Guest Lecturer ID5417 Artificial Intelligence and Society, 2023

Guest Lecturer ID5235 Interdisciplinary AI Research Methods, 2023

Fellowships

PhD Degree Financed by *Marie Sklodowska-Curie Fellowship*, European Commission.

Master Thesis Financed by *International Connecting Talent Fellowship*, Fomento de San Sebastian, and *Global Internship Program 2019 Fellowship*, Caja Rural de Navarra.

M.Sc. Degree Financed by *Universidad de Navarra - Grupo Santander Fellowship*, Banco Santander.

Publications

AIES 2023 Agathe Balayn, **Mireia Yurrita**, Jie Yang, Ujwal Gadiraju. 2023. "Fairness Toolkits, A Checkbox Culture?" On the Factors that Fragment Develope Practices in Handling Algorithmic Harms. In *2023 Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society (AIES '23)*. **Best Paper Award**

CHI 2023 **Mireia Yurrita**, Tim Draws, Agathe Balayn, Dave Murray-Rust, Nava Tintarev, and Alessandro Bozzon. 2023. Disentangling Fairness Perceptions in Algorithmic Decision-Making: the Effects of Explanations, Human Oversight, and Contestability. In *2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*. ACM, New York, NY, USA. **Best Paper Award**

HCXAI at CHI 2023 **Mireia Yurrita**, Agathe Balayn, Ujwal Gadiraju. 2023. Generating Process-Centric Explanations to Enable Contestability in Algorithmic Decision-Making: Challenges and Opportunities. In *2023 Human-Centered XAI Workshop at CHI 2023 (HCXAI '23).*

ACM CSUR 2023 [Under review] Andrea Tocchetti, Lorenzo Corti, Agathe Balayn, **Mireia Yurrita**, Philip Lippmann, Marco Brambilla, Jie Yang. AI Robustness: a Human-Centered Perspective on Technological Challenges and Opportunities. Submitted to *ACM Computing Surveys. Special Issue on Trustworthy AI.*

FAccT 2022 **Mireia Yurrita**, Dave Murray-Rust, Agathe Balayn, and Alessandro Bozzon. 2022. Towards a multi-stakeholder value-based assessment framework for algorithmic systems. In *2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22)*. ACM, New York, NY, USA, 535–563. `https://doi.org/10.1145/3531146.3533118`

MABS 2021 **Mireia Yurrita**, Arnaud Grignard, Luis Alonso, and Kent Larson. Real-Time Inference of Urban Metrics Applying Machine Learning to an Agent-Based Model Coupling Mobility Mode and Housing Choice. In *Multi-Agent-Based Simulation XXII: 22nd International Workshop, MABS* 2021, Virtual Event, May 3-7, 2021, Revised Selected Papers, pp. 125-138. Cham: Springer International Publishing, 2022.

Intelligent Computing 2021 **Mireia Yurrita**, Arnaud Grignard, Luis Alonso, Yan Zhang, Cristian Ignacio Jara-Figueroa, Markus Elkatsha, and Kent Larson. Dynamic urban planning: an agent-based model coupling mobility mode and housing choice. Use case Kendall Square. In *Intelligent Computing: Proceedings of the 2021 Computing Conference*, Volume 2, pp. 940-951. Springer International Publishing, 2021.