# Mireia Yurrita

# Curriculum Vitae

Delft, the Netherlands

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### Education

2021- PhD Degree in Human-Computer Interaction - Delft University of Technology,

2024/2025 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– **Doctoral Researcher Delft University of Technology**, *Delft, the Netherlands*. 2024/2025 **Task:** 
  - Researcher at the intersection of human-Al interaction and Algorithmic Fairness, Accountability, and Transparency. I develop conceptual frameworks and conduct empirical studies (quantitative and qualitative) to guide the development of responsible Al 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.
  - o 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.

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

### Teaching

Teaching IOB4-T3 Machine Learning for Design, 2024

Assistant

Teaching CS4145 Crowd Computing, 2023

Assistant

Guest ID5417 Artificial Intelligence and Society, 2023

Lecturer

Guest ID5235 Interdisciplinary AI Research Methods, 2023, 2024

Lecturer

# **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**

WIP Miny Rajiv\*, Mireia Yurrita\*, Sietze Kuilman, Luciano Cavalcante Siebert, Alessandro Bozzon. 2024. Towards Responsible Al Adoption: Implementation Practices and Challenges in the Dutch Public Sector. Work in Progress.

TOCHI Mireia Yurrita, Himanshu Verma, Agathe Balayn, Ujwal Gadiraju, Sylvia Pont, [Submitted] Alessandro Bozzon. 2024. Ability, Benevolence, Integrity: How Decision Subjects' Perceptions of Decision-Makers Shape their Fairness Perceptions in Algorithmic Decision-Making . Submitted to ACM Transactions on Computer-Human Interaction.

- CSCW 2024 Mireia Yurrita, Himanshu Verma, Agathe Balayn, Kars Alfrink, Ujwal Gadiraju, [Under Alessandro Bozzon. 2024. Personalize, Prioritize, Collectivize: Identifying Algorithmic Decision Subjects' Needs for Meaningful Contestability. Under review in ACM Conference on Computer-Supported Cooperative Work and Social Computing.
  - CHI 2024 Chadha Degachi, Siddharth Mehrotra, **Mireia Yurrita**, Evangelos Niforatos, Myrthe Lotte Tielman. 2024. Practising Appropriate Trust in Human-Centred Al Design. In 2024 Extended Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '24). Association for Computing Machinery, New York, NY, USA, Article 269, 1–8.
  - TREW at Agathe Balayn, **Mireia Yurrita**, Fanny Rancourt, Fabio Casati, Ujwal Gadiraju. CHI 2024 2024. An Empirical Exploration of Trust Dynamics in LLM Supply Chains. In Workshop on Trust and Reliance in Evolving Human-AI Workflows at CHI 2024 (TREW '24).
- She Ji 2024 Kars Alfrink, Ianus Keller, **Mireia Yurrita**, Denis Bulygin, Gerd Kortuem, Neelke Doorn. 2024. Envisioning Contestability Loops: Evaluating the Agonistic Arena as a Generative Metaphor for Public Al. In *She Ji: The Journal of Design, Economics, and Innovation*.
- AIES 2023 Agathe Balayn, **Mireia Yurrita**, Jie Yang, Ujwal Gadiraju. 2023. "Fairness Toolkits, A Checkbox Culture?" On the Factors that Fragment Developers' Practices in Handling Algorithmic Harms. In *2023 Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society (AIES '23)*. Association for Computing Machinery, New York, NY, USA, 482–495. **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 CHI Conference on Human Factors in Computing Systems (CHI '23). ACM, New York, NY, USA. Best Paper Award
- HCXAI at Mireia Yurrita, Agathe Balayn, Ujwal Gadiraju. 2023. Generating Process-Centric CHI 2023 Explanations to Enable Contestability in Algorithmic Decision-Making: Challenges and Opportunities. In 2023 Human-Centered XAI Workshop at CHI 2023 (HCXAI '23).
- ACM CSUR Andrea Tocchetti\*, Lorenzo Corti\*, Agathe Balayn\*, **Mireia Yurrita**, Philip Lipp- [Just mann, Marco Brambilla, Jie Yang. Al Robustness: a Human-Centered Perspective on Technological Challenges and Opportunities. 2022. Just Accepted in *ACM Computing Surveys*.
- 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.

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 Mireia Yurrita, Arnaud Grignard, Luis Alonso, Yan Zhang, Cristian Ignacio Jara-Computing Figueroa, Markus Elkatsha, and Kent Larson. Dynamic urban planning: an agent-2021 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.