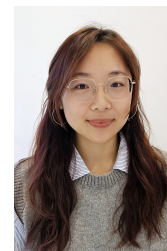


# Tianyu Zhang-Jin, PhD Candidate

📍 Barcelona, Spain

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🌐 tianyu-zhang-jin



## Profile

PhD candidate in Sustainability specialising in food waste, behavioural responses and interventions across consumer and organisational food systems. My research combines primary data collection, scanner data, survey design, quantitative and qualitative analysis, and real-world intervention design and evaluation. I am particularly interested in understanding how behavioural, organisational and institutional factors shape food-system outcomes, and in strengthening the use of applied economic and causal methods to evaluate sustainability interventions, complementing my current experience in Structural Equation Modelling and behavioural modelling.

## Research Interests

Food loss and waste; food policy and governance; consumer behaviour; organisational behaviour; policy and intervention evaluation; environmental assessment; sustainable food systems.

## Research Experience

- 2023 – Present     **Predoctoral Researcher. Universitat Politècnica de Catalunya (UPC), Barcelona.**
- Design, implementation and evaluation of real-world food waste interventions across households, hospitals, hotels and retail settings using mixed-method and longitudinal research designs.
  - Analysis of primary and scanner datasets to quantify food waste, identify behavioural and operational drivers using Structural Equation Modelling, and assess changes following interventions.
  - Coordination of field experiments and longitudinal data collection with private companies, healthcare institutions and public-sector stakeholders.
  - Lead the development of a successfully funded European research proposal and coordination of three research projects.
  - Production of scientific publications, technical reports and evidence-based recommendations for academic and governmental audiences.
- 2022 – 2023     **Research Technician. Centre for Agro-Food Economics and Development (CREDA).**
- Participation in the European Commission's evaluation of behavioural interventions to reduce consumer food waste within the European Consumer Food Waste Forum.
  - Contribution to EU-funded research projects, including SWITCHtoHEALTHY, RASCS and BREADCRUMB, addressing sustainable food systems, consumer behaviour, and food loss and waste prevention.
  - Qualitative data collection through interviews and co-creation activities, including focus groups.
  - Quantitative survey design and analysis.
  - Preparation of technical reports and communication of results to institutional stakeholders.

## Additional Professional Experience

- 2021 – 2022  **Programme Management Assistant.** **United Nations Environment Programme (UNEP), Nairobi.**
- Support to multilateral environmental governance processes and preparations for UNEA 5.2 and UNEP@50.
  - Assessment and accreditation of NGOs for participation in UNEA 5.2 and related processes.
  - Drafting of official documents and contributions to intergovernmental coordination.
  - Coordination and supervision of stakeholder participation during UNEA 5.2.
  - Involvement in high-level meetings and UN coordination mechanisms.
  - Member of the UNEP Youth Working Group on establishing a UN Youth Office.
- 2020  **Political Affairs Assistant.** **Delegation of the Government of Catalonia to the EU, Brussels.**
- Monitoring and analysis of EU policy developments in environment, climate, agriculture, and digital policy.
  - Preparation of policy briefings and analytical inputs for institutional stakeholders.
  - Contribution to strategic positioning within the EU institutional framework.
- 2022  **Sustainability Analyst.** **I2 Social Impact Investing, Barcelona.**
- Assessment of the social impact of sustainable development projects and investment portfolios.
- 2019  **Programme Management Assistant.** **Casa Asia, Barcelona.**
- Coordination of intercultural programmes in collaboration with public institutions and civil society organisations.
- 2018 – 2023  **Translator and Interpreter (Spanish/Catalan–Chinese).** **SeproTec Multilingual Solutions, S.L., Barcelona.**
- Facilitation of communication between public institutions and non-Spanish-speaking users in legal and administrative contexts.

## Education

- 2022 – Present  **Ph.D. in Sustainability.** **Universitat Politècnica de Catalunya**
- Thesis title: *From policy ambition to organizational practice: evidence from food waste interventions in healthcare, hospitality and retail.*
- Thesis defense scheduled: 9 November 2026.
- 2021 – 2022  **M.A. in Translation and Intercultural Studies.** **Universitat Autònoma de Barcelona**
- Thesis title: *Interculturality and Public Policy Efficiency: a case study of the Chinese community's attitude towards recycling policies.*
- 2019 – 2021  **M.A. in Diplomacy and International Organizations.** **CEI International Affairs / Universitat de Barcelona**
- Thesis title: *Landfill Earth: A Global Perspective on the Waste Problem.*
- 2016 – 2019  **B.A. Global Studies.** **Universitat Pompeu Fabra**
- Exchange semester at Beijing Foreign Studies University (China).
- Thesis title: *Death penalty in China.*

## Research Grants & Project Leadership

- June 2024  **SPRINT - Stakeholder Prevention and Reduction of Inefficiencies in Food Management at the Consumer Level,** European Commission, Single Market Programme. Led proposal development and coordinated project implementation.

## Research Grants & Project Leadership (continued)

|               |   |                                                                                                                                                            |
|---------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| March 2024    | ■ | <b>Catalan Household Food Waste Quantification</b> , Government of Catalonia. Led proposal development and coordinated project implementation.             |
| November 2023 | ■ | <b>SWIFT-CARE - Sustainable Waste-Reduction Initiative for Food in Hospitals</b> , CREDA. Led proposal development and coordinated project implementation. |
| 2023-Present  | ■ | <b>Research supervision</b> , Supervised four research interns and three BA theses.                                                                        |

## Research Publications

### Peer-reviewed Publications

- 1 L. Calderón-Pérez, A. Domingo, J. M. D. Bas, T. Zhang-Jin, et al., “Switching Mediterranean consumers to Mediterranean sustainable healthy dietary patterns (SWITCHtoHEALTHY),” *Nutrients*, 2024.

### Manuscripts Under Review

- 1 T. Zhang-Jin et al., “A multi-sector direct weighing protocol with diet-stratified sampling for hospital food waste quantification,” Under review in **MethodsX**.
- 2 T. Zhang-Jin et al., “Are food waste policies based on the right behaviour? evidence from objective household waste measurement in Spain,” Under review in **Food Policy**.
- 3 T. Zhang-Jin et al., “Diagnosing retail food waste using administrative data: Evidence from a supermarket intervention,” Accepted for publication in **British Food Journal**; revisions in progress.
- 4 T. Zhang-Jin et al., “Intervention feasibility under institutional constraints: Why food waste reduction in luxury hospitality shifts from consumer-facing to operational solutions,” Under review in **International Journal of Hospitality Management**.
- 5 T. Zhang-Jin et al., “Understanding hospital food waste through system dynamics: Evidence from a full-system direct weighing study,” Under review in **Journal of Cleaner Production**.

### Reports & Policy Publications

- 1 T. Zhang-Jin et al., “Diagnosis of food waste in Catalan households,” Government of Catalonia, 2025.
- 2 D. Rahmani et al., “Executive summary of the UPC–Mercabarna chair for the fight against food waste,” Mercabarna, 2024.
- 3 T. Zhang-Jin, “Landfill Earth: A global perspective on the waste problem,” UB Deposit, 2020.

## Research Methods & Skills

|                  |   |                                                                                                                                                                                                                                                                                                                      |
|------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Research Methods | ■ | Quantitative analysis; longitudinal and pre-post intervention evaluation; Structural Equation Modeling (PLS-SEM); behavioural modelling; administrative and primary data analysis; direct food-waste measurement; survey research; mixed methods; behavioural intervention design; qualitative stakeholder research. |
| Software         | ■ | <b>Statistical and Data Science:</b> R; Stata; SPSS; Excel.                                                                                                                                                                                                                                                          |
|                  | ■ | <b>Reproducible Research and Typesetting:</b> Quarto, RMarkdown, LaTeX.                                                                                                                                                                                                                                              |
|                  | ■ | <b>System Mapping and Visual Design:</b> Kumu, Figma.                                                                                                                                                                                                                                                                |
| Languages        | ■ | Spanish (native); Catalan (native); Chinese (native); English (C1); French (A2); Korean (A2).                                                                                                                                                                                                                        |

## Awards & Fellowships

- 2024  **Finalist, World Food Forum Transformative Research Challenge.** Food and Agriculture Organization (FAO).
- 2023  **FI Joan Oró Predoctoral Fellowship.** Agency for Management of University and Research Grants (AGAUR), Government of Catalonia.

## Conference Presentations & Contributions

- 2026  **RETASTE: 6th International Conference on Rethinking Food Resources, Losses, and Waste**, Heraklion, Greece. **Oral and poster presentation:**
1. *Understanding hospital food waste through system dynamics: Evidence from a full-system direct weighing study.*
  2. *Are Food Waste Policies Based on the Right Behaviour? Evidence from Objective Household Waste Measurement in Spain.*
-  **20th International European Forum on System Dynamics and Innovation in Food Networks**, Garmisch-Partenkirchen, Germany. **Two oral presentations:**
1. *Diagnosing retail food waste using administrative data: Evidence from a supermarket intervention.*
  2. *Quantifying food waste in healthcare: A case study at a large hospital in Barcelona.*

## Invited Talks & Panels

- 2024  **XXV National Congress on Healthcare Foodservice**, Cáceres, Spain. Invited round-table speaker: *Processes to reduce food waste.*

## Professional Training

- 2026  **Strategy Execution for Public Leadership**, Harvard Kennedy School (online)
-  **Google Project Management Certificate**, Google

## References

-  **Prof. José María Gil Roig**  
Professor of Agricultural Economics  
Universitat Politècnica de Catalunya (UPC)  
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-  **Prof. Djamel Rahmani**  
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