

# Leonardo Ferhati

## Ph.D candidate at DTU

PhD Researcher at DTU and Energy Engineer specializing at the intersection of absolute sustainability and scalable software architecture. I bridge the gap between rigorous mathematical modeling of EV/Battery supply chains and market-ready execution. As a developer-entrepreneur with a track record in iOS and AI-driven platforms, I build high-performance tools that transform complex energy data into actionable insights. I thrive in autonomous, high-stakes environments where engineering precision meets rapid software iteration.

Date of birth: 19/04/2000, Age: 25, Place of birth: Pescia (PT - Italy), Citizenship: Italian  
leo\_frht@icloud.com — LinkedIn profile — Visit my website: leonardoferhati.com

## SKILLS

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- **Languages:** Italian (native speaker), English (fluent), Danish (fair), Spanish (fair), French (basic).
- **Programming:** Python, Matlab/Simulink, R, SwiftUI.
- **Packages:** Brightway, Flodym.
- **Softwares:** Activity Browser, SimaPro, openLCA, ASPEN plus, ANSYS Fluent, ANSYS Icem, Origin.
- **Skills:** Microsoft Office (Word, Excel, PowerPoint), Overleaf (LaTeX), GitHub (leofrht-jpg), Claude Code.
- **Soft Skills:** teamwork, cooperative, willful, open-minded, able to work under pressure, social skills.
- **Interests:** entrepreneurship, finance, personal growth, public speaking, japanese culture, philosophy, history, psychology.
- **Hobby:** chess, gym, run, saxophone, football, cooking, reading, writing, iOS app developer.

## ACADEMIC EXPERIENCES

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**Danmarks Tekniske Universitet, DTU Sustain & DTU Wind & Energy Systems** København, Denmark  
*Doctoral student* November 2024 — October 2027

PhD project on "System Analysis for Absolute Sustainability of Electric Vehicles in the Energy Systems"

- *Focus:* Electric Vehicles (EVs), Lithium-ion Battery Packs, Supply Chain, Circularity, Vehicle-to-Grid (V2G).
- *Methodology:* Life Cycle Assessment (LCA), prospective Life Cycle Assessment (pLCA), Life Cycle Cost (LCC), Absolute Environmental Sustainability Assessment (AESAs), Material Flow Analysis (MFA).

**Università di Pisa, Sustainable energy communities (DESTEC)** Pisa, Italy  
*Research assistant* May 2024 — October 2024

Research position on "Renewable Energy Communities (RECs) and Flexibility services"

- Renewable Energy Communities: regulatory aspects and feasibility studies.
- Analysis of flexibility services including RECs and Electric Vehicles through energy systems modelling.

**École Polytechnique Fédérale de Lausanne, Group of Energy Materials (GEM)** Sion, Switzerland  
*Exchange master student* October 2023 — February 2024

Master Thesis on "Life Cycle Assessment of Power-to-X-to-Power Pathways: from Electrolysis to Hydrogen Storage"

- Fuel cells and Electrolyzers: Alkaline cells, PEM cells and solid oxide cells.
- Power-to-Fuel technologies & fuels transportation: Methane, Methanol and Ethanol.

## EDUCATION

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**Universita di Pisa, Pisa, Italy** September 2022 — September 2023

*Master of Science:* Advanced Energy Engineering  
*Final degree grade:* 106/110

**Universita di Pisa, Pisa, Italy** October 2019 — June 2022

*Bachelor of Science:* Energy Engineering  
*Final degree grade:* 97/110