

Coline Ritz | Design Engineer

ritzcoline@gmail.com | +33 749495276

Education

MEng in Design Engineering *First-Class Honours* | 2018-2022 [Learn more](#)

Imperial College London

Key Modules: Computing (Robotics, Machine Learning, Optimisation, IoT), Engineering (Electronics, Mechanics, Materials) and Design (Human-centred design, Product design, System design)

- Master's Project: Real-time Internet Carbon Footprint Analyser (Python, Machine Learning classifiers, Raspberry Pi)
- IoT project: Students' household energy consumption prediction algorithms (Python, ESP32, NoSQL MongoDB, Twitter API)

Employment history

Data Science Teacher, Aug 2024 - Present

Databird - Freelance

- Teach data science tools to career-shifting professionals, enhancing skills in Python, ML, SQL
- Guide students through complex data projects, fostering problem-solving skills and ensuring successful transition into industry data science roles

Co-founder, Aug 2023 - Nov 2024 [Learn more](#)

Ecocircular, Climate NGO - Self-employed

- Established a climate collective, inspiring action across North and South America for 9 months
- Facilitated environmental and climate workshops with 45+ leaders (students, IPCC researchers, NGO, etc.), sharing interviews on social media and at events (e.g. Paris Climate Academy).
- Sailed back the Atlantic, handling boat and mechanical maintenance

Green IT Engineer, Sep 2022 - Aug 2023

IJO - Full time

- Led carbon accounting for IT sectors (data centers, network, software), aligning with global standards
- Developed new methodologies and algorithms, improving accuracy and compliance with certified methodologies (GHG Protocol, SBTs, ISO, CDP) through literature reviews
- Organised and lead workshops and trainings on sustainable IT and AI

Sustainable Consultant, Mar 2021 - Sep 2021

DSS+ - Internship

- Helped develop the UK's first Biochar network, connecting sawmills, farmers and investors with a centralised marketplace
- Led data-driven research for biochar carbon sequestration assessment with Edinburgh University

Impact Engineer, Aug 2019 - Oct 2019

Dreev (EDF) - Internship

- Conducted environmental impact analysis of Vehicle to Grid (V2G) technology and bidirectional charging systems, delivering comprehensive research findings for large-scale implementation.

Teamwork and Leadership

Workshop Technician, Les Glénans Sailing School

- Maintained fleet of 50 yachts through advanced resin application and laminating, ensuring safety procedures and protocols.

President, TEDx Imperial 2021

- Managed day-to-day operations and led a team of 56 to organize TEDx Imperial's first virtual event, attracting 1,000 attendees.

Volunteering, Utopia 56

- Citizen mobilization alongside exiled people (volunteers roam, French classes, etc.).

Data analyst, Data for good

- Evaluated the effectiveness of the CodeCarbon Python package in measuring the carbon footprint of code.

KEY SKILLS AND INTERESTS

Languages: French (native), English (bilingual), Spanish (Advanced)

Programming Languages/ Frameworks / Libraries: Object-oriented Python (scikit-learn, TensorFlow), MATLAB, Github

Software: MS Office, Solid-Works, FUSION 360, Adobe (Id, Ai, Ps, Xd), CES Edupack, SimaPro, WF-Reptool

Hardware: Raspberry Pi, Arduino, ESP32, prototyping, 3D printing, laser cutting, soldering, wood works

Awards: *DESIRE award* - Imperial College most prestigious innovation award, *UK Innovate* - Direct Air Capture and Greenhouse Gas Removal Innovation, *Venture Catalyst Challenge* - Imperial Entrepreneur Lab

Interests: Playing for Paris Region Nicolaïte de Chaillot Football Club, First Team Imperial College Women's Football Club, Violin