

Alessandro Cascioli

ENERGY ENGINEER · PHD

Viale Aleardi, 6, Terni, Umbria, 05100, Italy

☎ (+39) 348 5637707 | ✉ alessandro.cascioli@protonmail.com | 🏠 Alessandro Cascioli

Work Experience

Syntex GreenTech

SUSTAINABILITY CONSULTANT

Perugia, Italy

Oct. 2023 - Present

- Developed an innovative ESG strategy, driving sustainability while reducing financial risks through data-backed decision-making.
- Conducted comprehensive sustainability impact assessments, identifying key risks and opportunities for business growth.
- Developed Sustainability reports following both the GRI and EFRAG frameworks.
- Developed autonomously a platform to speed up the collection of information and monitoring of KPIs.
- Clients in the following sectors: footwear, pharmaceutical, logistics, transportation, clothing, energy, food trade.

I.T.S. Umbria Academy

LECTURER

Perugia, Italy

Oct. 2023 - Present

- Lecturer for the training unit "Project Management" for no. 18 hours in the course "Energy Efficiency"

Free University of Bozen-Bolzano

POSTDOCTORAL RESEARCHER AND TEACHING ASSISTANT

Bozen, Italy

Nov. 2022 - Present

- RFD project - Recovery of strategic materials from sewage sludge (acronym RFD).
- FRONTSH1P project - A FRONTrunner approach for the transition to a circular and resilient future: deployment of systemic solutions with the support of local clusters and the development of regional community-based innovation schemes.
- Performed techno-economic analysis to optimize process conditions and reduce costs.
- Developed simulations and models to foster the understanding of thermochemical processes.
- Applied data analysis techniques to experimental datasets, such as peak de-convolution and curve fittings.
- Developed a machine learning model to predict the biocrude oil yield.
- Teaching assistant for the course "Energetics" of the B.Sc. in Industrial and Mechanical Engineering.
- Teaching assistant for the course "Power Production, CHP and District Heating Systems" of the M.Sc. in Energy Engineering.
- Support in the supervision of PhD and Master students.

SGS

ISO 27001:2013/2022 AUDITOR TRAINEE

Italy

Aug. 2021 - Present

- ISO/IEC 27001:2013 - Information Security Management lead auditor training.
- ISO/IEC 27001:2022 - Information security, cybersecurity and privacy protection.

SGS

CONSULTANT

Italy

Oct. 2018 - Oct. 2019

- Dealer training for stock audit on assignment from a certifying organization for a leading heavy machinery manufacturer.
- Audits held in Italy.

Qualitas S.r.l.

CONSULTANT AND AUDITOR

Perugia, Italy

Jul. 2018 - Present

- ISO/IEC 27001 - Information Security Management internal audits for a consulting company.

SGS

AUDITOR

Europe

Apr. 2017 - Oct. 2019

- 2nd party compound audit on assignment from a certifying organization for a leading automobile manufacturer.
- Audits held in Italy and abroad (Austria, Germany, Finland, Poland, Portugal, Sweden).

Baruffaldi S.r.l.

CONSULTANT

Perugia, Italy

Oct. 2016 - Oct. 2019

- CE homologation processes of motorcycle helmets, goggles and gloves.
- Management of relationships with suppliers, mainly not Italian (China and Pakistan).

Skills

Programming	SQL, Python, JavaScript, TypeScript, C, Bash, Dart, LaTeX, Matlab
Scientific computing	NumPy, SciPy, Sympy, Pandas, LMFIT
Machine learning	TensorFlow, Keras, PyTorch, Scikit-learn, XGBoost
Data visualization	Tableau, Matplotlib, Seaborn, Plotly, Altair, Sigmaplot
Dashboards and app development	Streamlit, Dash, Django, Flask, React, React Native, NextJS, AstroJS, Flutter, PySide, TKinter
Database management	PostgreSQL, MySQL, SQLite, MongoDB, SuperbaseDB

Certificates

2024	ISO/IEC 42001:2023 - Artificial Intelligence Management Systems Auditor/Lead Auditor	Dimitto AG
2023	ESG-SDGs Rating:2022© Auditor/Lead Auditor and Consultant	CERTIFICATION Srl
2023	ISO/IEC 27001:2022 Transition Course	SGS
2023	DeepLearning.AI TensorFlow Developer Specialization	Coursera
2020	State examination for the qualification to practice as an Energy and Nuclear Engineer	University of Trento
2019	ISO/IEC 27001:2013 - Information Security Management Systems Auditor/Lead Auditor Training Course	SGS

Education

Free University of Bozen-Bolzano

[Bozen, Italy](#)

PHD IN SUSTAINABLE ENERGY AND TECHNOLOGIES

[Oct. 2019 - Oct. 2022](#)

- Thesis: Hydrothermal liquefaction of biomass and biocrude upgrading: fundamentals, experimental analysis and modelling.
- Spent 5 months as a visiting PhD in the Advanced Biofuels Lab of Aalborg University, Denmark.
- Developed and commissioned a pilot plant for the production of biocrude oil to be upgraded to SAF (Sustainable Aviation Fuels).
- Process modelling through optimization algorithms to find thermodynamic equilibrium.
- Performed techno-economic analysis to optimize process conditions and reduce costs.
- Support in the supervision of master students.
- Preparation of technical reports, visualizations, and presentations.

Free University of Bozen-Bolzano

[Bozen, Italy](#)

M.Sc. IN ENERGY ENGINEERING

[Sep. 2017 - Oct. 2019](#)

- Thesis: Valorization of residues from parapharmaceutical and herbal medicine production: a case study.

University of Perugia

[Perugia, Italy](#)

B.E. IN MECHANICAL ENGINEERING

[Sep. 2013 - Apr. 2017](#)

- Erasmus + of 6 months at the FAU Erlangen-Nürnberg, Germany.

Languages

Italian	Native or bilingual proficiency, C2
English	Professional working proficiency, C1
German	Independent user, B2

Appendix

Publications

78th national congress ATI (2023)

V. BENEDETTI, A. CASCIOLI, S. FASOLI, A. AREF, F. PATUZZI, M. BARATIERI

2023

- Continuous Hydrothermal Liquefaction of microalgae for biocrude oil production

Bioresource Technology

V. BENEDETTI, A. CASCIOLI, M. PECCHI, M. BARATIERI

2024

- Fast screening of catalyst performances in hydrothermal processes for biofuel production using differential scanning calorimetry
- DOI: <https://doi.org/10.1016/j.biortech.2024.130934>

Fuel Processing Technology

M. PECCHI, A. CASCIOLI, A. R. MAAG, J. L. GOLDFARB, M. BARATIERI

2022

- Uncovering the transition between hydrothermal carbonization and liquefaction using differential scanning calorimetry
- DOI: <https://doi.org/10.1016/j.fuproc.2022.107349>

Fuel

A. CASCIOLI, M. BARATIERI

2021

- Enhanced thermodynamic modelling for hydrothermal liquefaction
- DOI: <https://doi.org/10.1016/j.fuel.2021.120796>

Conferences and Seminars

WasteEng22 - The 9th International Conference on Engineering for Waste and Biomass Valorisation

[Copenhagen, Denmark](#)

ORAL

2022-06-27 - 2022-06-30

Legitimation of differential scanning calorimetry for the study of hydrothermal carbonization and liquefaction.

EUBCE 2022 - 30th European Biomass Conference and Exhibition

[Online](#)

ORAL

2022-05-09 - 2022-05-12

A Newly Designed Pilot-Scale Continuous Reactor for Hydrothermal Liquefaction: Preliminary Results and Validation of an Enhanced Thermodynamic Model.

WasteEng21 - The 8th International Conference on Engineering for Waste and Biomass Valorisation

[Online](#)

ORAL

2021-05-31 - 2021-06-04

Valorisation of lignocellulosics residues from herbal medicine production.

EUBCE 2021 - 29th European Biomass Conference and Exhibition

[Online](#)

ORAL

2021-04-26 - 2021-04-29

Hydrothermal carbonization of lignocellulosic biomass from para-pharmaceutical and herbal medicine production.

EUBCE 2020 - 28th European Biomass Conference and Exhibition

[Online](#)

POSTER

2020-07-06 - 2020-07-09

Exploitation of lignocellulosic biomass from para-pharmaceutical and herbal medicine production.

Honors & Awards

INTERNATIONAL AWARDS

2022 **Springer Nature's Best Oral Flash Award**, WasteEng2022 Conference

[Copenhagen, Denmark](#)

I authorize the processing of my personal data in the CV pursuant to Legislative Decree no. 196 of 30 June 2003 "Personal Data Protection Code" and the GDPR - EU Regulation 2016/679.