TECH

TECH+

CI/CD, Scipy, Numpy, Pandas, Matplotlib, Seaborn, Plotly, Scikit-learn, Brightway2, Aspen Plus, Energy Plus, NREL's SAM, PVSyst, AutoCAD, SolidWorks, OpenFOAM, Sima Pro, Agile Methodologies

SOFT SKILLS

Proactive, creative, objective-oriented, problem-solving, time management, change management, communication skills, assertive, empathy, motivational

CONTACT

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miguel-g-c.github.io/

Miguel García Casas

Energy Engineer
PhD in Industrial Technologies
Full-stack developer
MBA

ABOUT

I am an energy engineer from Madrid (Spain), with deep computer science skills, such as web programming, scripting and open-source development.

LANGUAGES

Spanish | Native language
English | C1

EDUCATION

PhD in Industrial Technologies | 2018 - now | King Juan Carlos University

MBA | 2018 - 2020 | IMF Business School

Master in Energy and Fuels for the future | 2016 - 2017 | Autonomous University of Madrid

Degree in Energy Engineering | 2010 - 2015 | Polytechnic University of Madrid

WORK EXPERIENCE

Contactica – IMDEA Energy, R&D Consultant - PhD

APR 2018 – NOW, Madrid, Spain

Software development of a new eco-design tool for sustainability-oriented optimization of industrial processes based on a novel methodology which embeds modelling, process simulation, life cycle sustainability assessment and multi-objective optimization algorithms. Leading a small team of developers as Product Owner since the end of 2020.

Supporting H2020 and Horizon Europe proposal writing and projects, such as Portablecrac, Lignoxos, Eucaliva, BeonNAT, Up4Health and Alehoop

E4e, Simulation engineer and business developer

SEP 2017 – MAR 2018, Madrid, Spain

Self-supply on-grid photovoltaic plants for large consumers. Self-supply microwind plants. Building energy demand. HVLS fans. Supply chain management. Financial modelling.

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WORK EXPERIENCE

CORIA, CFD Research Engineer

MAY 2017 – JUL 2017, Rouen, France

Development in OpenFOAM (C++) of a new dynamic solver for rotating mesh able to compute the angular velocity depending on the moment generated in the turbine blades.

Trdimension, Sales Engineer

MAY 2017 – JUL 2017, Madrid, Spain

Responsible for the distribution of additive manufacturing technologies, project tracking, productivity and implementation studies, support on CAD tasks

Hexcel Composites, Intern

JUL 2014 – SEP 2015, Parla, Spain

Feasibility studies of industrial energy efficiency projects.

PUBLICATIONS

García-Casas, M., Gálvez-Martos, J.L., Dufour, J., 2021. Environmental and economic multi-objective optimization of synthetic fuels production via an integrated methodology based on process simulation, life cycle assessment, and life cycle costing (Under revision)

CONFERENCES

García-Casas, M., Gálvez-Martos, J.L., Dufour, J., 2020. ECO2DES: Python framework for the eco-design of industrial processes. Lecture. The 30th European Symposium on Computer Aided Process Engineering