CV- Iván Fernández

Personal details

Date of birth	07.05.1997
Gender	Male
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Current profession	PhD Candidate

Education

2020-09 - 2023-07

Universidad de Sevilla - Master's Degree in Industrial Engineering (studies in double master's degree mode) Credits: 120 Grade: 7,79
The Master in Industrial Engineering provided me with a solid scientific training, as well as a wide variety of knowledge in various industrial technologies (mechanical, electrical, electronic, automatic , materials, industrial constructions, projects, production, chemistry and environment, energy, and industrial organization), which forges me as a multidisciplinary professional capable of developing my professional work in industries, companies or public bodies, as well as for the free exercise of profession.

2020-09 - 2023-07

Universidad de Sevilla - Master's Degree in Electric Power Systems (studies in double master's degree mode) Credits: 60 Grade: 8,13
The Master's Degree in Electric Power Systems provides advanced knowledge in the field of Electrical Engineering. The objective is training postgraduates in this scientific-technical area, with competencies that comprise this area of knowledge, both scientific and professional.

2015-09 - 2020-09

Universidad de Sevilla - Bachelor's Degree in Energy Engineering Credits: 240
With the third best record.
Professional activities related to: Energy resources; Thermal energy generation technologies; Use of renewable energy sources; Storage, transport and distribution of energy; Transformation and use of energy; Savings and energy efficiency; Energy markets; Environmental, economic, legal and safety aspects in the energy field.

Work experience

2023-02 - 2025-02

Ingelectus Innovative Electrical Solutions S.L. - Electric projects engineer | R&D (100%)
During my first year, I was involved in the "Renewable Energy" area, splitting my time 50%-50% with the "Smart Grids" area. About six months ago, I transitioned to working 100% on research and innovation projects within the latter area. In "Renewable Energy," I was responsible for developing photovoltaic plant models in Power Factory for grid connection studies, which included load flow, short-circuit, harmonics, small-signal response, dynamic control modes, and dip response. These models had to undergo a final certification and acceptance process by Spain’s TSO. In "Smart Grids," my work focuses on collaborative research projects with companies and research groups, involving predictive consumption systems using ML/DL, state estimation in distribution networks, hosting capacity, and network discovery algorithms. The primary tools used for project development are Python, along with SQL and No-SQL databases.

2020-06 - 2020-11

GABITEL INGENIEROS, S.L. - Grid maintenance
After the internship in E-Distribución I was offered a position in the department of electricity and efficiency of the associated company Gabitel, where I could continue improving the skills already adquired. The possition was similar, so I learn practising how to be more efficient. Also, I get used to alternate between going to the office and telecommuting.

2020-01 - 2020-04

Endesa Distribución - Grid maintenance
During this internship I've learn how to deal with a big amount of daily work load, communication between department, law applications, follow deadlines dates, order and check differents kinds of necessary actions in the low voltage grid, etc.

Due to the large amount of different ways that damages occur in actual grids, I've improve my fast thinking to apply to each problem the right answer.

Courses

2024-05

Deep Learning with Python Duration: 1 month
The course provides an introduction to the Python3 programming language and its key libraries, including Numpy, Pandas, Matplotlib, and Seaborn. It then introduces the theoretical and practical aspects of neural network programming using TensorFlow and Keras. Participants will explore the unique characteristics of Fully Connected Networks, Convolutional Neural Networks (CNNs), Autoencoders, and Recurrent Neural Networks (RNNs). Finally, the course includes hands-on programming of Deep Learning applications through practical examples.

2023-09

Dynamic Simulation Lenguaje (PowerFactory DIgSILENT) Duration: 2 days
This course provides an introduction to the DSL language and its application in PowerFactory, covering dynamic model handling and the creation of composite models, such as wind farms and DSL sub-models. It includes key concepts on dynamic models, PQ control of IEEE inverters, and graphical programming in DSL, including model frame creation and templates for generators and wind turbines. Additionally, it explores the syntax and macros of transfer functions, programming of auxiliary models, and the use of special functions such as events and electrical variable measurements. The course also includes practical exercises, such as dynamic response of loads and controllers for capacitor banks.

2023-07

Babson Build Entrepreneurship Program Duration: 1 week
The Babson College course in Boston is an intensive program focusing on the context of entrepreneurship, successful experiences, and market analysis. Additionally, it emphasized developing public speaking skills and engaging an audience.

	This course was awarded as a prize for winning the entrepreneurship competition at the Technical School of Engineering and finishing second at the University of Seville.
2021-08	TEP21 - Batteriteknikk Duration: 4 month This course offers advanced insights into various aspects of battery technology, including the use and sizing of batteries, as well as tools for battery diagnostics. It covers the storage capabilities and chemical structure of batteries, along with the mechanisms that lead to reduced efficiency and shortened lifespan. The course also explores battery production and the key characteristics relevant to this process, as well as the design and sizing of battery systems. Additionally, it delves into battery management systems (BMS), digital tools for machine learning, and the concept of digital twins. Finally, the course addresses research techniques and methods for optimizing production processes.
2019-03	Lubricants and lubrication applied to wind turbines - Cátedra Fundación CEPSA Energía Duration: 1 week
2019-02	Analysis and prevention of occupational hazards - Technical course Duration: 5 month

Languages

English	Verbal skills: Fluent Written skills: Fluent
Spanish	Verbal skills: Native language Written skills: Native language
French	Verbal skills: Basic skills Written skills: Basic skills
Norwegian - bokmål	Verbal skills: Basic skills Written skills: Basic skills