

# Baldwin Cortes, Ph.D.

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## SUMMARY

Seasoned machine learning engineer and data scientist with a Ph.D. in Electrical Engineering, specializing in data analytics, SQL, and Python. Expertise in machine learning for regression, classification, and forecasting, along with experience in large language models and image processing. Proficient in utilizing Pandas for data manipulation and analysis. Recently earned an AI certification from Huawei and was selected for a fully-funded training program in Hangzhou, China, focusing on cutting-edge AI algorithms. Currently serving as an Associate in Energy Insights at Sproule, where I develop advanced energy models and provide strategic insights for the energy transition.

## EXPERIENCE

**Associate, Energy Insights - Sproule, Mexico** Aug 2024 - Present

- Developed advanced energy models using machine learning algorithms to capture key variables and transition pathways, contributing to data-driven insights for energy transition strategies.
- Created data transformation pipelines to clean and transform data for modeling and analysis.
- Developed and deployed a containerized web application using Docker, hosted in Microsoft Azure.
- Participated in the hiring process for new members within the team.

**Machine Learning Engineer - G2i Inc., USA (In partnership with Scale AI)** Jun 2024 - Aug 2024

- Evaluated the quality of AI-generated code, providing human-readable summaries of rationale.
- Assisted in training LLMs by evaluating responses and providing recommendations on understanding assignments.

**Research Scientist (Ph.D. graduate) - UMSNH, Mexico** Mar 2018 - Feb 2022

- Conducted time series forecasting experiments using deep learning algorithms for local irradiance.
- Designed multiple algorithms for optimization of photovoltaic systems utilizing deep reinforcement learning.

**Adjunt Professor - UMSNH, Mexico** Oct 2015 - Aug 2019

Lectured several courses including Digital Electronics, Digital Control, Microcontrollers, and Instrumentation.

## EDUCATION

2018 - 2022	Ph.D. in Electrical Engineering at <b>Universidad Michoacana (UMNSH)</b>	(GPA: 4.0/4.0)
2015 - 2017	M.Sc. in Electrical Engineering at <b>Universidad Michoacana (UMNSH)</b>	(GPA: 4.0/4.0)
2009 - 2014	B.Sc. ( <i>Hons</i> ) in Electronics Engineering at <b>Universidad Michoacana (UMNSH)</b>	(GPA: 3.7/4.0)

## LANGUAGES

Spanish (Native), English (C1), Portuguese (A1)

## CERTIFICATIONS

Microsoft Certified: Azure Data Scientist Associate	(2024)
DeepLearning AI Deep Learning Specialization	(2024)
Huawei Certified ICT Associate-AI	(2024)
Stanford University & DeepLearning AI Machine Learning Specialization	(2023)
Google Advanced Data Analytics	(2023)

## SKILLS

Programming Languages	Python, JavaScript
Machine Learning Frameworks	PyTorch, Keras, Scikit-Learn, Pandas, Numpy
Deep Learning	NLP, Image Processing, Deep Reinforcement Learning
Big Data Tools	Apache Spark, Databricks
Other	Microsoft Azure, Azure DevOps, SQL, Git, Apache Airflow, Docker