Gráinne Costigan

Data Scientist

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Working in the most competitive and notable research institutes in Europe has given me strong team working skills, with a focus on attaining the end goal using innovative techniques and tools. Now I am focusing my attention on applying my data skills in an industrial environment to solve a much wider world of questions.

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Sanofi / Senior Data Scientist
Dec 2021 - Present, Barcelona

As the senior data scientist in the 24-strong global demand forecasting team I am responsible for:
★ Responsible for design and implementation of the technical roadmap for global supply chain forecasting.
★ Leading transformational project on demand forecasting
★ Implementation & benchmarking of latest forecasting algorithms
★ Development of our judgemental forecasting practices following top academic principals (in collaboration with Uni. of Lancaster)
★ Supervision of new graduates and development of technical skills within the team.
★ Providing technical skills and full project delivery from inception to production for different business partners across the company.

Tech: R, Databricks, Rshiny, time-series forecasting, change management, data architecture

HP Inc. / Senior Data Scientist
April 2018 - Dec. 2021

As the technical lead I worked with telemetry data from printers including usage statistics, system errors; as well as customer service reports on failures, customer satisfaction feedback and system expert analysis. My responsibilities included:
★ Projects on part failure prediction, adaptive maintenance and anomaly detection for fleet, customers and individual printers.
★ Continued development of big data infrastructure.
★ Promotion of data driven culture within HP Barcelona, leading active learning and sharing of data science.

Tech: AWS, SQL, Python, Jira, PowerBI. Project Management, use case identification, data wrangling, bayesian methods, NN interpretation

S2DS/ Data Science Fellow
Aug 2017 - Sept 2017

As an intern with SNTV, a world leading sports news video content provider, on a team of 3 we worked on a detailed customer segmentation and associated assessment of resource allocation.

Tech: Python (scikit learn), customer segmentation, market trends, clustering, recommender systems.

Leiden University/Research Associate
May 2014 -May 2016

Participated in the development of 'Big Data' (1 PB) scientific data archive - the latest European astronomical all sky survey. I took a lead role in the beta testing of archive where I also:
★ Worked alongside ESA and private companies to develop archive tools.
★ Wrote the long term data preservation plan, contributed to testing of data traceability and to the collection and validation of data.
★ Designed & supervised multiple student projects, Msc and PhD. .

Education

PhD / Astrophysics: Star Formation
Graduated Dec. 2014 Queen's University Belfast (Northern Ireland)
Research time split between European Southern Observatory (ESO),
Munich and Dublin Institute of Advanced Studies (DIAS), Dublin
Awarded three research grants together worth over € 100,000.

Masters / Mathematics
2007 - 2008 Cambridge University

Bachelors/ Theoretical Physics BA (mod)
2003 - 2007 Trinity College Dublin

Research Papers

Co-author on 20+ refereed academic papers. Highlights include:

★ "Temperments of young stars" 2014 MNRAS as primary author, cited 92 times .
★ "Efficacy of urodynamic studies in predicting long-term outcomes of the transobturator tape" 2019 Journal of Urology. Second author.
★ "A mixture model application in monitoring error message rates for a distributed industrial fleet" 2023. Coauthor. Currently in review.

Community involvement

Inspira Mentor
Barcelona, Jan-Mar 2020

Leading six sessions with 10/11 year olds exploring the influence of gender in STEAM careers (through Spanish/Catalan)

DataKind Volunteer
Dublin, 2017

DataKind is a group of data science volunteers working together to help not-for-profit organisations. Part of the work is to demonstrate and educate the NGOs on the power of data science.

Volunteer Teaching
Bogata, Sept. 2016

Science teaching in a primary school as part of a three week voluntary placement.Designed and implemented a program for all classes which involved 150 kids. (through Spanish).

Personal Projects

In 2025 I am aiming to be the first Irish woman to race solo across the Atlantic in a mini transat (6.5m sail boat). Currently I am training in Barcelona and actively participating in the international mini race circuit.

Languages

English Native. Spanish (certified B2.4 - used daily). Catalan (cert. A2).