
Dr. Gráinne Costigan

Senior data scientist working with HP Large Format Print identifying and solving business needs with data – taking models from the drawing board to production including part prediction failure, anomaly detection in machine behaviour, adaptive maintenance and customer segmentation and classification.

EXPERIENCE

Senior Data Scientist

HP Inc, Barcelona
April 2018 - Current

Technical lead for a diverse set of projects across the business (production & commercial printers) working with local and remote coworkers (India, US, Singapore, China).

- Projects include smart servicing of printer fleets, anomaly detection, customer segmentation and COVID impact assessments. (contact for more details)
- Working with telemetry data from printers as well as customer service reports and business generated data sets.
- Mentoring of new graduates within team.
- Promotion of data driven culture within HP Barcelona, leading active learning and sharing of data science methods across the business.
- Presentation of work at [AI & Big Data congress 2019](#)

Main technologies: AWS, SQL, python, Jira, powerBI

Skills: Project management, business use case identification, data wrangling, bayesian methods, neural network interpretation.

Data Science Fellow

S2DS with Pivigo, London
Aug. 2017 – Sept 2017

As intern with SNTV, a world leading sports news video content provider, I was working on a 5 weeks, time boxed, data project to do a detailed customer segmentation and associated assessment of resource allocation.

- Part of a team of 3 which carried out first in-depth data analysis of content broadcast and download data.
- Performed customer segmentation in order to deepen understanding of how SNTV's content is used and identify undervalued and/or ineffective content.
- Provided further understanding of change in market due to rise in digital media and how this affects SNTV clients.
- Building of recommendation system to provide individual recommendations for SNTV clients.

Main Technologies: Python (scikit learn)

Skills: Customer Segmentation. Identifying Market Trends. Statistical Analysis. Clustering. Recommender Systems.

Travel & Personal Development

May 2016 – Aug 2017

During this period I traveled through latin america learning Spanish and volunteering.

Research Associate

Leiden University
May 2014 – May 2016

Participated in the development of 'Big Data' (1 PB) scientific data archive – latest european astronomical all sky survey.

- Took a lead role in beta testing of archive: co-organised a team of 10 scientific testers, gathered amateur astronomer testers, collated all test cases and implemented and tested these in SQL. I then raised issues and liaised with the European Space Agency (ESA) archive development team to identify areas of weakness within the archive access software.
- Worked alongside ESA and private companies to develop archive tools: established companies had access to necessary data, understood archive contents and limitations of data (while limited data sets available).
- Wrote the long term data preservation plan, contributed to testing of data traceability and to the collection and validation of data.
- Designed and supervised multiple student projects, Msc and PhD level taking place over time periods of 3-6 months.

EXPERIENCE

Junior Researcher

ESO, Munich
DIAS, Dublin
Oct. 2009 – Nov. 2013

Based between four different research institutes while working towards my PhD in astronomy, I developed effective communication skills, an independent work ethic and good project development skills.

- Performed rigorous testing for biases within data, cleaning methods and analysis.
- Learnt to work as an effective team member locally and remotely.
- Awarded three research grants together worth over € 100,000.

Main Technologies: MIDAS (FORTRAN based). IDL.

Skills: Time Series Analysis. Data Visualisation and Communication. Data Cleaning.

Junior Researcher

Space Lab, Dundee
University, Scotland
Oct. 2008 – Oct. 2009

Implementing and testing of computer vision algorithms for planetary rover navigation.

Main Technologies: MATLAB/Octave.

Skills: Algorithm implementation and development.

EDUCATION

PhD Dec. 2014

Graduated Queen's University Belfast (Northern Ireland)

Masters 2007 – 2008

Cambridge University (UK), Master of Mathematics. CASM Part III

Bachelors 2003 – 2007

Trinity College Dublin (Ireland), Theoretical Physics, BA (mod)

TECHNICAL SKILLS

+ [beginner] ++ [intermediate] +++ [expert]

Python. +++

R. +

SQL. ++

BASH. +++

Unix/Linux. +++

MATLAB/Octave. ++

MIDAS (FORTRAN based). ++

IDL. ++

Git. ++

Jira. ++

AWS (EC2, Lambda, S3). +

COMMUNITY INVOLVEMENT

Jan - March 2020
Barcelona.

Inspira Mentor – Leading six sessions with 10/11 year olds exploring the influence of gender in STEAM careers. [Done through spanish]

Spring 2019
Barcelona.

Hour of code volunteer - teaching 10 year olds through hour long sessions how to begin coding. [Done through spanish]

Feb. 2017 – Jan. 2018
DataKind, Dublin.

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 and what it can be learnt from it.
Skills: NPL. Google Analytics. Modeling Intervention Effectiveness. Decision Trees.

Sept. 2016
Bogotá, Colombia.

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

Languages

English (native).

Spanish (certified B2.4 – use it daily in professional & social environments)

Personal Interests

Kite surfing, Crossfit, Food, Traveling, Teaching and Learning new things.