

# Jordan Vaults

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Award winning and product nominated Lead and Senior Data Scientist with strong statistical knowledge. Adept at collecting, analysing and interpreting large datasets, developing new explainable and sustainable machine learning models, and performing data management tasks with a keen interest in using state of the art approaches. Experience in constructing AI teams allowing businesses to unlock their full potential, developing from a “**Sense, guess, respond**” business to a “**Predict, plan, act**” business. Furthermore, having exceptional business acumen and the ability to work in a team environment.

## Work Experience

### Senior Data Scientist

Covea Insurance PLC, Halifax  
09/2020 – Present

- Defining and building the data science platform from the ground up, defining the data science culture and best practices.
- Developed the AI Counsel as a central hub for triage and education.
- Creating pipelines and feature stores into a datalake – allowing the data science team to have readily available data sources for experimentation through KubeFlow in multiple different data formats (Feast, Airflow).
- Statistical analysis and experimentation of machine learning models to inform forecasting and improve final valuations of motor claims - XGBoost modelling, regression (1 million+ by Q4 2022)
- Creating a hybrid model to detect ID fraud and in turn Ghost Broking rings before and after inception of policies using multiple different structured data sets. This model was used in conjunction with the expertise of the Policy Validation Unit team (Savings over 1million+/Year) - **Nominated for 2 Awards**
- Deployed and Monitored models/data through newly tested and implemented Seldon platform.

### Systems Developer/Analyst

AETC (PCC Airfoils), Leeds  
06/2016 – 06/2019

- Development, management and delivery of a suite of in-house advanced analytical applications using C#.NET/SQL with a back-end relational database which allowed process engineers to create awareness through alerts, furthermore optimizing process performance throughout both facilities using six sigma. The tools built allowed for enhanced profitability of roughly (300k+/Year) within the business in the form of time, resources and scrap reduction.
- Developed and maintained interactive KPI reporting processes through PowerBI and conducted data story telling research with data science.
- Implemented automated ETL process of data from data warehouse in Mexico to UK databases. Loading data to and from data marts/data warehouse in SAP.
- Terminal farm infrastructure development, solely developed, managed and implemented the terminal farm infrastructure which is not only used in AETC but throughout the whole division in PCC Airfoils, this project tied in nicely with the previous ETL as it could be used alongside the plant in Mexico. This allowed for single point maintenance, reduce licenses (35k/Year) and in a manufacturing environment reducing hardware maintenance expenditure (25k/Year).

## Education

2021: **Harvard Online – Data Science: Machine Learning.**

- Professional Certificate Program in Data Science

2020: **MSc Data Science and Analytics (Distinction)**

- Master's Dissertation: Bringing Genetics, Imaging and Machine Learning to the Heart.
- Artificial Intelligence - (Image classification, Sentiment analysis using RNN,CNN and LSTM).
- Transport Data Science - (Spatial & Routing data, GIS, Bayesian networks and Hadoop).

2018: **BSc Degree 1<sup>st</sup> class in Computing** (Software engineering & Advanced Databases, 86%)

- Degree Project: Development of a Management System.
- Advanced Software Engineering - (C#, Java)
- Advanced Database Design and Implementation - (Data Warehouse Models & Approaches)

2014: 3 A-Levels (A-C) Coleraine Academical Institution

## Achievements & Volunteering

### Ghost Broking/ID Fraud solution nomination

- Insurance Times Claims Excellence awards 2022 - Fraud Solution of the Year
- British Claims Awards 2022 - Counter fraud initiative

### Employee of the Year Nomination - Digital department (Covea)

- [Link to award and linkedin post](#)

### Employee of the Quarter Nomination - Digital department (Covea)

- Development of the data science team and platform. Machine learning models implemented to help claims automation and fraud detection within company.

### Employee of the Year bonus - IT department (AETC)

- Developing and implementing solutions that aided the process engineering team to analyse, diagnose and prevent variance within essential materials.

### Head Boy (Ballymoney High School, 2012)

- Giving Speeches regularly throughout year, managing a team of prefects.

### Young European Business Campus

Berlin, Germany

- Actively learning about Culture and Interculturalism within delegations present.
- Presentation topic "Intercultural communication as a factor of success". Red City Hall, Berlin.

## Skills

Communication      Hosted a talk digital event on "Serving & Managing Machine Learning models @ Scale with Seldon" - Deploying and managing Machine Learning models can be a challenging process. Enabling machine learning at enterprise scale with their Deploy platform and what the future of devops and machine learning looks like. [Youtube Link](#)

Podcast with the head of developer relation of Seldon discussing how machine learning is used in the insurance industry, the relationship between Data Science and DevOps, the challenges of integrating ML into company frameworks, and the role of model explainability. [Spotify Link](#)

Software              Spark, PowerBI, Tableau, SQL server, R-Studio, PyCharm, Visual Studio and SAP.

Languages            R, Python(Keras, Pytorch, Scikit learn, XGBoost), Java Script, Java, HTML, CSS, PHP, MySQL, C#, PowerShell, ASP.NET.

## Other Information

Hobbies                Kaggle, trading, rugby, swimming and golf.

Reading List          Data Science for business (*Tom Fawcett et al*), An Introduction to Statistical Learning: With Applications in R (*Gareth James et al*), Generative Deep Learning (*David Foster*), Python for Data Analysis (*McKinney*).

## References

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