

# Cian Doyle

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🌐 <https://github.com/cianoo45/ULPortfolio>

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## SUMMARY

Software developer with 2 years experience, Particular interest in Unstructured data and how it can be used to gain previously unattainable insights, and also Machine Learning. Strong experience with Java, Python, Scala, Spark, SQL, Machine Learning, NLP. Experience as a consultant working directly with both technical and non-technical stakeholders, deriving business requirements and implementing them in a swift manner.

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## EXPERIENCE

### Data Engineering Consultant KPMG

June 2020 - Present, Dublin

- Liaised directly with clients, including technical and non-technical stakeholders to derive business requirements and implement them.
- Successfully implemented several projects that sought to harness the power of vast quantities of data to provide insights and cost savings to the client, Primarily using Scala, Spark, Python & SQL.
- Provided training and oversight to several new graduates in the team.

### Associate Software Developer ACI Worldwide

January 2019 - August 2019, Limerick, Ireland

- Wrote and maintained a large Selenium test suite, adding over 200 new tests to a total size of 1000. Increased the pass rate of the test suite from 73% to 98%
- Aided creation of Rest API + Backend server for coding competition using Java Spring Boot
- Exposure to DevOps, including aiding the setup of Jenkins Pipelines, Docker containers and use of Kubernetes Clusters.
- Developed Test Framework and Harness to aid creation of future tests.

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## PROJECTS

### Plotting Football Players as Vectors

- Developed Python code that converts football players to points in multi-dimensional vector space based on Fifa attributes.
- Implemented cosine similarity algorithm, To allow users to input a player and the output will be a list of stylistically similar players.
- Constraints can be placed to limit searches, E.G you can filter to say: "Show me players similar to Lionel Messi, Under the age of 23, from Ireland".
- This project sparked my interest in plotting everything and anything as vectors, Specifically interested in plotting words as vectors

### Using Neural Networks to predict Bitcoin price

- Researched, Developed and implemented a Long-Short Term memory Neural Network in Python capable of predicting Bitcoin short term price changes and generating profit (Only before fees unfortunately).

### Web App to Play Tic Tac Toe vs AI

- Developed a web interface where you can play tic tac toe vs an Artificially intelligent agent using heuristic algorithms, This is a WIP but a version is currently available on my GitHub. It is being developed with Java/Spring/HTML/CSS/JS

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## EDUCATION

### Bachelor of Science in Computer Games Development (Comp Sci)

University of Limerick • Limerick, Ireland • 2020 • 3.4 GPA

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## CERTIFICATIONS

### Quantexa Certification

Quantexa • 2020

Certified in the usage of the Quantexa framework for Network Analysis

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## COURSEWORK

### Software Architecture and Design

Computer Science • Design Patterns + Software Architecture

Built a wrapper framework for Selenium to add functionality

## **Data Structures and Algorithms**

Computer Science • Algorithm Optimization

Optimize algorithms to run as efficiently as possible

## **Artificial Intelligence and Machine Learning**

Computer Science • Various AI techniques – From Path planning with A\* to Neural Networks

Built a program to efficiently plan paths for games

## **Software Testing**

Computer Science • Test Driven Development

Wrote a small system and accompanying JUnit tests

## **Software Quality**

Computer Science • Research into Software Quality Standards such as ISO/IEC 15504 (SPICE)

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## **SKILLS**

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**Main Languages:** Python, Java , Scala

**Data:** SQL, Spark

**Artificial Intelligence:** Pytorch, Keras, Tensorflow, NLP, Anything Python!

**Industry:** Agile, GIT, JIRA

**Soft Skills:** Teamwork, Communication, Problem Solving, Reliability

**Front End:** HTML,CSS,JavaScript

**Backend:** Spring, Flask