



WINNER

Artificial Intelligence Apprentice of the Year 2022

Kevin Cassar



A bit about Kevin...

Kevin Cassar is a Technical Specialist in the Data Science Unit at the Financial Conduct Authority. The department is responsible for developing bespoke data science solutions that will enable the FCA to become a data led regulator.

Congratulations on winning the Artificial Intelligence Apprentice of the Year 2022 Award! How did you feel when you heard your name called out?

I was honoured and humbled. I knew the other finalists so I was familiar with the standard of their work and the types of projects they've worked on and I knew it was stiff competition!

I'd only just completed my apprenticeship, maybe 4-5 weeks before the awards ceremony and it was a great way to top that off!

What has been your career journey to get where you are today?

Although I have a degree in mathematics and statistics, my first undergraduate degree was a joint honour in chemistry and biology, following which I read a doctorate degree in chemistry from the University of Bath.

As a chemist, I was working within the hydrogen storage and nanoparticles domain on high profile research projects conducted in collaboration with Oxford University, University College London, Pilkington Glass and Johnson Matthey. Although my work was predominately chemistry focused, it also included maths, coding etc.

As my work was taking me further from the lab and science, I decided to move into a different industry, a better paid one and chose to go into financial services.

Initially I completed a Chartered Financial Analysis qualification to learn the language of finance. I started my experience in the financial sector as an equity analyst eventually running a stockbroking firm.

The opportunity to be part of the team to set up the regulatory arm of the European Central Bank presented itself. This unique opportunity to shape the regulatory landscape of one of the world's main financial regulators was the reason I transitioned into financial regulation.

After spending four years as a Senior Manager with one of the leading consultancy firms, I joined the FCA to combine my business domain knowledge, data science experience and regulatory understanding to help shape the data led approach to financial supervision.



So why did you choose to do an apprenticeship in the field of artificial intelligence?

Before I embarked on the apprenticeship, I was reading a Masters Degree in AI offered by one of the top 20 universities in the UK. Although I was doing well in my studies, I recognised the value that an apprenticeship can add to my organisation and this was one of the driving rationale behind the switch.

Although the underlying concepts used in data science were not new to me, as I moved more into the technical specialist role, I needed to know more about coding (in previous roles I'd had teams to do that work!) and to use my knowledge differently. I felt an apprenticeship would be of more benefit to me. The experience of learning and implementing that knowledge directly into a live working environment is a huge advantage of digital apprenticeships.

Ok, talk us through a typical day at the FCA

Well, no 2 days are the same! I can demonstrate an example through the Level 7 project that I managed. For that work, I led a team of four individuals and the project was implemented over several months. Understandably, the internal governance procedures within the FCA are very rigorous so it can take a while for a project to get full approval and sign off. Then it's into the standard project management cycle broken down into tasks such as data collection, data cleaning, feature engineering, model building and testing, model validation etc.

Each with dedicated milestones and timelines. My role was to develop the project idea from inception, communicate the idea and project updates to stakeholders, implementing the project through a combination of managing the team, being a technical specialist and applying my holistic knowledge.

How has your employer and your training provider supported you during your apprenticeship?

At the FCA, apprenticeships are valued and supported accordingly. The HR department is very experienced in the enrolment process and the ongoing support needed, with dedicated internal communications channels to help apprentices. As a result, we're a strong group helping and learning from each other. As a mid career apprentice, having a group of cohorts within the organisation has been hugely

beneficial. My training provider Cambridge Spark also maintained strong connections with the FCA, coming in to give talks to the apprenticeship group.

What advice would you give to someone considering an apprenticeship in this field?

Doing an apprenticeship is not an easy option – despite what some people think! It takes commitment and hard work. With my background, I already had a level of knowledge and experience in maths and stats, but it still took a lot of effort and I had to dedicate a lot of extra personal time to my studies. Don't under estimate how much time it'll take. A degree or an apprenticeship shouldn't be competing choices. Each offers different benefits. It depends on what you want to do.

For me, a masters degree was more about research, getting papers published, working in academia. Whilst the apprenticeship offered an opportunity to learn and implement that knowledge into a real-life environment. So it really depends on how you like to learn and where you want your career to take you.

What do you think the future holds for apprenticeships?

I hope that peoples' misconceptions of apprenticeships will change. They are not something to be looked down on or considered to be of less value than a degree. The skills I have learnt through my apprenticeship are very much on a par with a masters degree and my tutors came from some of the top universities in the country. Within the finance sector, finance related apprenticeships are considered a valuable route. It helps that C-suite managers tend to have an apprenticeship qualification such as ACCA, CIMA, CFA etc and the combination of knowledge and experience is respected. Hopefully, other industries will mirror this in the not too distant future.

How would you like your career to progress?

Having found a role where I can leverage all aspects of my skill set, I really enjoy what I do and I want to continue that journey, hopefully moving into more senior roles over time. In a recent communication, our Chief Data, Information and Intelligence Officer talked about the benefit that data science is bringing to UK consumers. I want to be a part of that journey - it's an exciting time to be in AI.