

ONLINE INSIGHTS

Online programmes at Oxford Saïd



Finding the right benefits-to-complexity ratio and identifying potential pitfalls

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Babak Mahdavi-Damghani completed a Masters in Computer Science at the University of Oxford in 2006. Then he worked with a variety of financial services companies before returning to Oxford to study for a PhD in Machine Learning with the Oxford-Man Institute of Quantitative Finance. He completed the Oxford Algorithmic Trading Programme in 2019.

Because of my PhD subject and background working for banks and hedge funds in different roles – including algorithmic trading – I was invited to act as a tutor on the programme. Before I started, though, I enrolled as a participant in order to see what the material and the platform looked like ‘from the other side’.

Completing the Oxford Algorithmic Trading Programme on its own is not going to get you a job as an algorithmic trader. But what it will do is give you an overview of what is being done in the sector. If you have an academic technical background – for example, if you have a PhD in the applied mathematical and computational sciences but no experience – it can give you insight

into the theoretical limits, and in particular, how to find a healthy benefit-to-complexity ratio. In an exclusively academic environment you often prize complexity for its own sake, while people in industry are less concerned about the beauty of a solution than about the value it adds. If you have no technical background but are working elsewhere in the financial services industry, the programme will give you an idea of the sorts of issues that quants have to address without the unnecessary details – more specifically, the ideas that they discuss, and the strategy ideas that have worked in the past. You will also have the opportunity to back-test a strategy – that is, to see how it would have worked using historical data.

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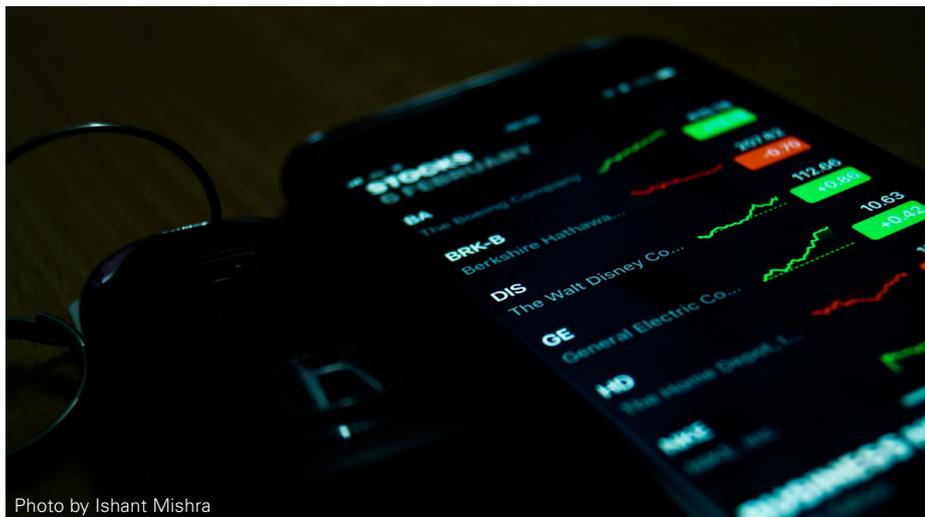


Photo by Ishant Mishra

The programme brings together these diverse types of people who all contribute to the effectiveness of algorithmic trading in their organisations. Yes, of course you need people who can write code and develop mathematical frameworks, but you also need non-technical people on the sales and business side who interject some emotional intelligence and act as the bridge to clients and what they want. As both a participant and a tutor it was really helpful to have people on the programme who brought these different perspectives to our discussions and who could contribute their own knowledge.

I enjoyed the way that the course was structured – starting with broad industry concepts and becoming more interesting and adventurous as we progressed through it. The style of the weekly assignments changed too. The first few were quite easy, in a multiple-choice format – but even then you had to be on your toes and make sure you read the question properly! By the time we got to

the final assignments, we were putting ourselves in the position of a quant on an algorithmic trading desk and back-testing different strategies. Because the course is designed to be accessible to business executives as well as technical people there is no programming involved, the back-testing used a simple Excel spreadsheet (with a VBA backend the participants do not need to know anything about).

The big advantage of an online programme is that you can fit it around your other commitments and work on it at home in the evenings. It is also surprisingly interactive: the tutor is there to answer questions from participants, get them talking to each other online and encourage them to engage with the discussions. Participants were arranged in groups, and very soon there were LinkedIn invitations being issued and WhatsApp groups being created. This all helped create a buzz around the programme, and made it interesting and exciting to be part of.

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www.sbs.oxford.edu/algotrading

To find out more please visit the website or get in touch with our team to start your learning journey on:

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