Summer Of Quant

Courses

Three mini-courses, on the basics of some core concepts in Quantitative Finance

Guest Lectures:

Guest lectures on careers in quant, as well as technical topics by industry professionals

Aakash: 8779340447 Aryan: 9038434974 Sathwik: 9834260902 Umang: 9769508110

Overview

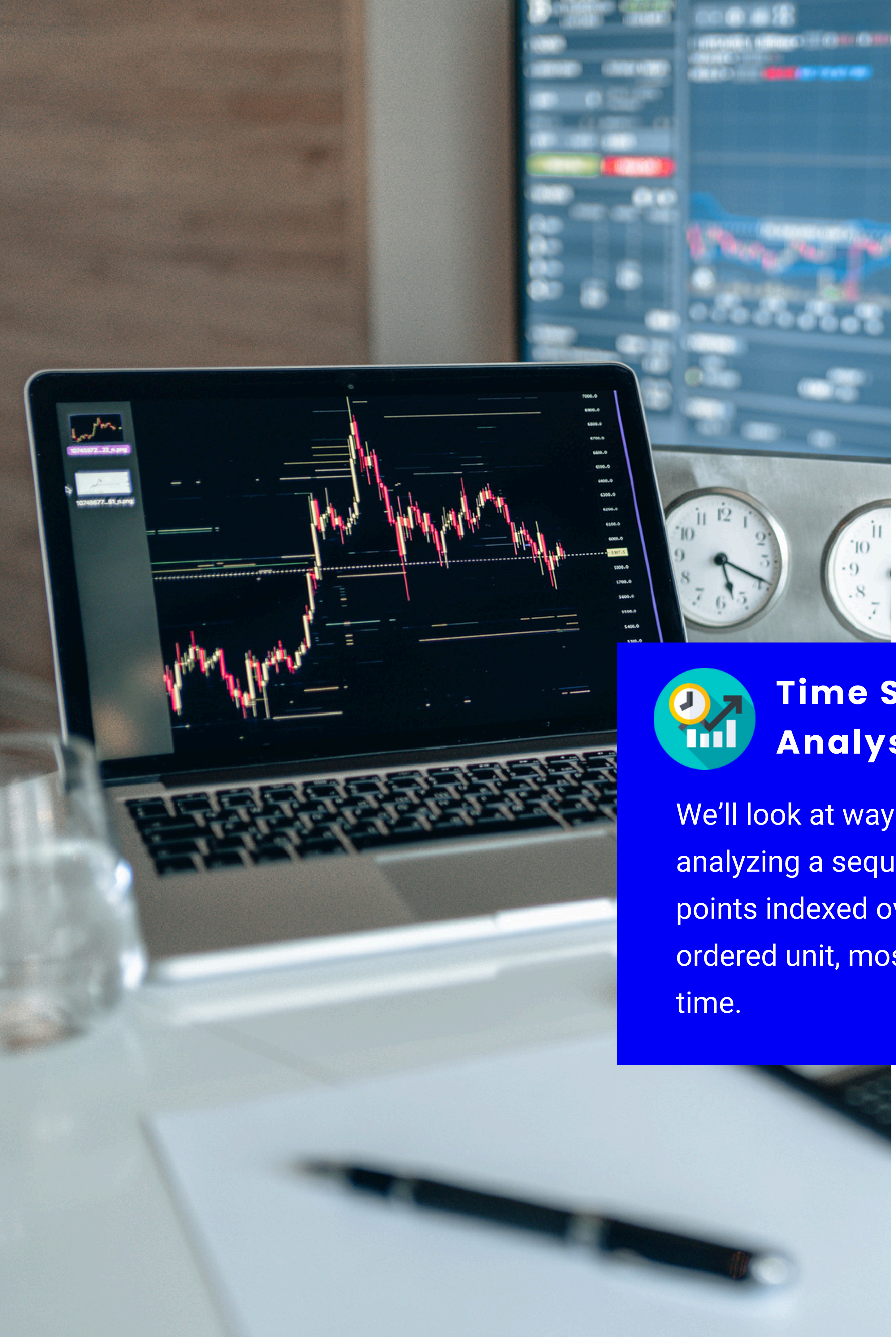
The three courses are:

- Time Series Analysis
- Financial Derivatives and Pricing
- Probability Primer

You can take up any and all courses. There will be an assignment towards the end of this program, roughly around the second week of July, based on which you'll be eligible for certificates. We'll let you know more about the evaluation plan soon.

The courses outline a brief introduction to a topic, however, you are encouraged to refer to the resources given as well.

Happy Learning!



Time Series Analysis :

We'll look at ways of analyzing a sequence of data points indexed over an ordered unit, most often time.

Course Contents:

Find the course **here**

Here's a recommended timeline you should follow

Days	Module
1	1: Basics
2-3	2: Exploring Trends
4-5	3: AR, MA, and ARIMA
6-8	4: Machine Learning Methods
9-10	5: ARCH and GARCH
11-13	6: Extra Reading (VARMA and Facebook Prophet)

Financial Derivatives and Pricing Models :

We'll look at what a financial derivative is, different types of derivatives, and some pricing models

Course Contents:

Find the course **here**

Here's a recommended timeline you should follow

Days	Topic
1-7	Derivatives
8-9	Arbitrage, Zero Coupon Bonds
10-13	Risk Neutral Pricing, Binomial Pricing Model
14-16	Multi-step Binomial Model
17-19	Black-Scholes Model
19-20	Monte Carlo methods for Option Pricing

Probability and Stochastic Processes:

We'll understand the basics of Probability Theory, and introduce some advanced concepts along the way

Course Contents:

Find the course **here**

Here's a recommended timeline you should follow

Days	Module
1-3	1: Introduction to Probability
4-7	2: Types of Random Variables
8-11	3: Stochastic Processes
12-14	4: Applications in Quant

Please also refer to the resources in 'Further Reading', such as the lecture notes of EE325: Probability and Stochastic Processes

Contact Us

Thank You!