

Tarak KHARRAT

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Date of birth: February 3<sup>rd</sup>,

1986 (34 year old)

Nationality: French,Tunisian

## Education

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- 2012 – 2015** [UNIVERSITY OF MANCHESTER](#), UK.  
**PhD** in applied statistics.  
**Title:** A Journey Across Football Modelling with Application to Algorithmic Trading.  
**President's Doctoral Scholar Award holder** 2012–2015.  
**Maths' Award Winner** in February 2015.  
Participated in multiple consultancy projects with industry.
- 2009 – 2010** [LA SORBONNE \(PARIS 1- PARIS 6\)](#), France.  
**Master of science** in Mathematics and Mathematical Methods in Economics and Finance.  
**Specialisation:** Quantitative finance.  
**Main courses:** Stochastic Calculus, Simulation and Asset Pricing, PDE in finance, Levy processes, Monte Carlo Methods, Statistics ...
- 2007 – 2010** [ENSTA PARIS](#), France.  
A member of ParisTech (a consortium grouping the most prestigious Engineering Schools in France).  
**Specialisation:** Simulation and Mathematical Engineering.  
**Main courses :** programming in  $C^{++}$ , Martingales and Stochastic Algorithms, Stochastic Calculus, Numerical Simulation, Systems Control, Economy, ...
- 2005 – 2007** [LYCÉE LOUIS LE GRAND](#), Paris, France.  
Completed a three-year scientific program in preparation for the national “Grande École” competitive exam.

## Work Experience

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- Mar 2016– current** [KICKDEX LIMITED](#), London, UK.  
Lead Data scientist, co-head of Research and Development.  
In charge of building and improving predictive (pre-match) models for football and refining algorithmic trading strategies.
- Jan 2018– current (Part time)** [UNIVERSITY OF LIVERPOOL, CENTRE FOR SPORTS BUSINESS](#), Liverpool, UK.  
Research fellow.  
Conducting research projects in statistics and sports analytics (mainly football).
- Oct 2015–Dec 2017** [UNIVERSITY OF SALFORD, CENTRE FOR SPORTS BUSINESS](#), Manchester, UK.  
Research fellow.  
(27 months) Conducting research projects in statistics and sports analytics (mainly football).
- 2011-2012** [SOCIETE GENERALE AMERICAS SECURITY](#), New York, USA.  
(16 months) Proprietary trading department.  
· Collaborating closely with the high frequency and basket trading desks.  
· Conducting research and statistical analyses of equity securities and indexes.  
· Developing new trading framework and strategies as well as maintaining and improving existing ones.
- 2009-2010** [TOTAL](#), Paris, France.  
(16 months) Shipping & Trading department (External Consultant).  
· Participated in the detection and resolution of bugs in the *STAGE 6.1.10* software (a simulation tool able to analyse any tank transportable product chain behaviour).

## Language

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- French: mother tongue.  
Arabic: bilingual.  
English: fluent.

## Computer Skills

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- **Interpreted Languages:** · **R** developer: author of several packages on the [CRAN](#) archive; **python:** fairly advanced level, **Julia:** intermediate level.
- **Compiled Languages:** · Strong knowledge of  $C^{++}$ .
- Good knowledge of machine learning algorithms for classification, regression, clustering and reinforcement learning.
- Working experience with High Throughput Computing (HTC) and parallel computing (using R and  $C^{++}$ ).
- Good working experience with **MongoDB** (NoSQL) Database.
- Strong knowledge of data collection by **web-scraping**.

## Interests and Activities

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- Soccer, Tennis (member of the Tunisian national for more than 8 years).