# DR NIKHIL SHENAI
nikhil@theiqt.com

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| <u>SUMMARY</u> | PhD with strong Quantitative and Programming skills, passionate about Quantitative Development |
| | Multi-disciplined in education (Cambridge, Imperial) and versatile with technology (C++, Python) |
| | Capable of designing and implementing complex end-to-end solutions (Cryptocurrency Platform) |
| | Implemented Machine Learning and Econometrics models in Matlab, Statistical Learning models in R |

## <u>SKILLS</u>

**Quantitative:**
[from PhD, MSc, BA]

Time Series Models, Time and Spectral Estimation, Kalman Filter,
Machine Learning (Ernest Chan, Andrew Ng), Statistical Learning (Hastie et al.),
Stochastic and Point Processes, Financial and Derivatives Theory

**Programming:**
[from PhD, Accenture,
 own business]

C++, Matlab, Java, Python, R, SQL, MetaTrader, JForex, Cryptocurrency APIs,
Betfair API, Web Scraping, EViews, SOAP/XML, C#, Stata

**General:**
[from PhD, Accenture]

Object Oriented Programming, Tick Data, Data Warehousing,
Lifecycles: Academic Research, Software Development, Consulting Project

## <u>EDUCATION</u>

*PhD in Financial*
*Econometrics*
*2007 to 2012*

**Imperial College Business School, South Kensington, London SW7 2AZ**
Research Topic: Dynamic Modelling of Irregular Times, Prices and Volumes at High Frequencies
Key Areas: Time Series Models, Long Memory, Point Processes, Tick Data, Kalman Filter,
Maximum Likelihood Estimation, Whittle Estimation, C++, Matlab, SQL, R

*MSc Finance*
*2003 – 2004*

**Imperial College Business School, South Kensington, London SW7 2AZ**
A-grade average, specialisation in Financial Engineering courses, applied Matlab in Thesis
Key Courses: Advanced Options Theory, Fixed Income, Risk Management

*BA Economics*
*2000 – 2003*

**Jesus College, University of Cambridge, Cambridge CB5 8BL**
High Upper 2nd (Hons.), included Maths, Econometrics and Finance courses
Top mark in the year in Financial Econometrics Exam (final year)

*Secondary School*
*1994-1999*

**St. Paul's School, Lonsdale Road, London SW13 9JT**
A-Levels: Maths (A), Further Maths (A), Physics (A), Economics (A)
AS-Levels: French: A        A/O-Levels: French: A
GCSEs: 9 A*s (including Maths, Physics and History), 2 As (English and English Literature)

**<u>PUBLICATIONS</u>**

Zikes, F., Barunik, J., & Shenai, N. (2014).
"Modeling and Forecasting Persistent Financial Durations". *Econometric Reviews* – available here

## <u>AWARDS / ACHIEVEMENTS</u>

**Programming:**
(Ranked
 Practice
 Challenges)

Hackerrank.com: Rank 1 for C++    (top 200   out of 308 000 programmers)    Profile: link here
Rank 1 for Java   (top 1200 out of 477 000)           Leaderboard: link here
Rank 1 for Python (top 250   out of 323 000)           (you can filter by "Hacker"
Rank 1 for SQL    (top 2200 out of 297 000)           using the name: nikhil_shenai)
Top 1% for Algorithms and Data Structures (out of 1 442 000, 450 000 respectively)
Scored 81% / Strong on International Knowledge Measurement C++ 11 assessment

**Trading:**
Received interest from Wiley & Sons Publishers for a book and course deal
Accepted invitation to be Co-organiser of London Systematic Traders meetup group (link here)

**Training / Tutoring:** Award for "Top Tutor" at The Profs, Private University Tutors (1st out of 400 active tutors)

**Imperial (PhD):** Awarded ESRC Studentship at Imperial (only 2 available)

**Imperial (MSc):** Award for "Best Technical Thesis" for implementation of Fast Fourier Transforms for Options Pricing

**Cambridge:** Scholarship in final year (top 10 out of 170 in penultimate year exams)

**Accenture:** Sponsorship throughout undergraduate degree

**St. Paul's:** Top Scholarship throughout (170 candidates)

# DR NIKHIL SHENAI
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**PERSONAL**          Nationality: British          Gender:  Male

**CAREER HISTORY**

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| ***E K TECHNOLOGIES***<br>(own business)<br>*2012 to date*<br><br><br>BUSINESS AREA:<br><br>QUANTITATIVE<br>CONSULTING | • Founder: I build software for Trading and Data Science. Website: www.eekaytee.com<br>   Client feedback is on the "Testimonials" page of my website: link here<br><br>• Highlight:<br>   Built a Platform for trading and data collection for Cryptocurrency APIs (summary here)<br>   Using Java and JavaScript, REST and Streaming services, and OOP / OOD concepts.<br>   Features: Multithreading, Automated Trading across 6) exchanges accounting for market<br>   depths across assets (Bitcoin and other cryptocurrencies e.g. Ether)<br><br>• Selected Past Projects (indent shows programming languages used):<br><br>   Financial Investment Application (Equities)          Python<br>   Pattern Recognition Trading Strategy (FX)          Python, C (MQL4)<br>   Long / Short Memory Trading Strategy (FX)          C (MQL4)<br>   Wavelet Analysis Trading Strategy (Futures)          R, TradeStation, C (MQL4)<br>   Cointegration Analysis for Pairs Trading (Stocks, Commodities)     Matlab<br>   Renko Bar Trading using JForex (FX, Indices, Commodities)     Java (JForex)<br>   Economic Calendar Scraper for generating News Indicators (FX)    C (MQL4)<br>   Backtesting using MeX to call C++ from Matlab (FX)          Matlab, C++, MySQL<br>   Trading and Data Collection using the Betfair API (Tennis)     Matlab, XML, C#, Excel<br><br>• Selected Past Clients:<br><br>   Rishi Gohill, Gohill Trading (http://gohilltrading.co.uk/)<br>   Joe Branco, Forex Living (http://www.forex-living.com)<br>   Vedanta Trading Limited (http://www.masterthemarkets.net)<br>   Professor Paolo Zaffaroni, Head of Finance Group, Imperial College Business School<br><br>• Future Projects:<br><br>   ARFIMA Signals applying the Kalman Filter          Matlab, C (MQL4), Java<br>   Support Vector Machine Trading Strategy          Matlab, C (MQL4), Java<br><br>• Courses: Artificial Intelligence Techniques for Traders (Ernest Chan): SVMs, Random Forests<br>              Machine Learning (Andrew Ng): Neural Networks, PCA, Clustering |

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| ***THE INSTITUTE OF***<br>***QUANTITATIVE***<br>***TECHNOLOGY***<br>(own business)<br>*2020 to date*<br><br><br>BUSINESS AREA:<br><br>QUANTITATIVE<br>PRODUCTS | • Founder: we produce products for Algorithmic Trading and Data Science in MQL4 and Python<br>   Website: www.theiqt.com<br><br>• Highlight:<br>   Developed *Advantage*, an MT4 plugin which helps traders to:<br>     • implement Algorithmic Trading with up to 85% less MQL4 code<br>     • handle risk management and scalping more easily<br><br>   *Advantage* is available at https://theiqt.com/advantage |

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| *THE PROFS* (Tutoring Agency) *2014 to date*<br><br>BUSINESS AREA:<br><br>QUANTITATIVE TRAINING | • Quantitative Consultant working with professionals, postgraduates and undergraduates in the areas of Programming, Data Science / Statistics / Econometrics, Mathematics and Finance at The Profs, Private University Tutors: https://www.theprofs.co.uk/ The Guardian Newspaper Start Up of the Year Finalist in 2016.<br><br>• Top Tutor award in 2016 (out of 400 tutors). 1000+ Sessions, 100+ Clients. Strong results have been achieved by clients, visible on the "Testimonials" page of my website: link here. Latest testimonials are at LinkedIn: https://www.linkedin.com/in/dr-nikhil-shenai/<br><br>• Highlight:<br>    Assisted Global Head of Conduct at HSBC with Artificial Intelligence MSc courses:<br>    1) C++ and Matlab programming for a self-driving robot, she received a mark of 70%. Video here (C++ 2-4-2 MLP Neural Network with tanh Activation Functions)<br>    2) Mathematical preparation for Robotics and Neural Networks exams, she received marks of 75% for both<br><br>• Selected Client Backgrounds with numbers in brackets: Professional (33), LSE (23), City University / Bayes (13), UCL (7), King's College London (6), Cambridge (2) |

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| *ACCENTURE* *2004 – 2007 (graduate)* *2001     (internship)* *1999 – 2000 (gap year)*<br><br>BUSINESS AREA: MANAGEMENT AND IT CONSULTING | • Promoted to Consultant / Associate at the first opportunity<br><br>• Sponsored throughout university based on Gap Year performance (1999-2000) Gained strong feedback on Internship (2001) leading to graduate job offer (2003)<br><br>• Technologies: SQL, Business Objects Designer and Reports Developer (tools for automating queries and presenting reports), Business Objects Data Integrator (ETL tool), AutoIt<br><br>• Areas of work:<br>  - Business Intelligence (data warehousing, database management, reporting software)<br>  - Finance & Performance Management (business process analysis and design)<br>  - Change Management (training)<br>  - SAP (support of user transaction systems)<br><br>• Client contact:<br>  - Gained strong client feedback throughout (Warner Bros., Sky and BAE Systems)<br>  - Usually worked towards challenging deadlines as part of an Accenture team at the client site, in final project acted as sole representative of Accenture at the client site<br>  - Developed, deployed, led user acceptance and provided live support for Business Intelligence software reports for global Finance and Sales departments (for employees up to Director level)<br>  - Directed onsite training and development of user training manuals for one client<br>  - Client company sectors: Media & Entertainment, Aerospace & Defence<br><br>• Consulting Project Lifecycle phases:     Requirements, Analysis, Design, Build, Deploy, Support<br><br>• Software Development Lifecycle phases: Design, Build, Test, Deploy, Support<br><br>• Courses: SQL, Dimensional Modelling (Ralph Kimball), ETL and Reporting (Business Objects), Consulting, Process Design |