

DR NIKHIL SHENAI

nikhil.shenai@eekaytee.com

SUMMARY

PhD with strong Quantitative and Programming skills, passionate about Quantitative Consulting

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

SKILLS

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

EDUCATION

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)

PUBLICATIONS

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

AWARDS / ACHIEVEMENTS

Programming: Hackerrank.com: Rank 1 for C++ (top 200 out of 308 000 programmers) Profile: link [here](#)
(Ranked Rank 1 for Java (top 1200 out of 477 000) Leaderboard: link [here](#)
Practice Rank 1 for Python (top 250 out of 323 000) (you can filter by “Hacker”
Challenges) 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)

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PERSONAL

Nationality: British

Gender: Male

CAREER HISTORY

<p><i>E K TECHNOLOGIES</i> (own business) <i>2012 to date</i></p> <p>BUSINESS AREA:</p> <p>QUANTITATIVE CONSULTING</p>	<ul style="list-style-type: none">• Founder: I build software for Trading and Data Science. Website: https://www.eekaytee.com/ Client feedback is on the “Testimonials” page of my website: link here• Highlight: Built a Platform for trading and data collection for Cryptocurrency APIs (summary here) Using Java and JavaScript, REST and Streaming services, and OOP / OOD concepts. Features: Multithreading, Automated Trading across 6) exchanges accounting for market depths across assets (Bitcoin and other cryptocurrencies e.g. Ether)• Selected Past Projects (indent shows programming languages used): <table><tbody><tr><td>Financial Investment Application (Equities)</td><td>Python</td></tr><tr><td>Pattern Recognition Trading Strategy (FX)</td><td>Python, C (MQL4)</td></tr><tr><td>Long / Short Memory Trading Strategy (FX)</td><td>C (MQL4)</td></tr><tr><td>Wavelet Analysis Trading Strategy (Futures)</td><td>R, TradeStation, C (MQL4)</td></tr><tr><td>Cointegration Analysis for Pairs Trading (Stocks, Commodities)</td><td>Matlab</td></tr><tr><td>Renko Bar Trading using JForex (FX, Indices, Commodities)</td><td>Java (JForex)</td></tr><tr><td>Economic Calendar Scraper for generating News Indicators (FX)</td><td>C (MQL4)</td></tr><tr><td>Backtesting using MeX to call C++ from Matlab (FX)</td><td>Matlab, C++, MySQL</td></tr><tr><td>Trading and Data Collection using the Betfair API (Tennis)</td><td>Matlab, XML, C#, Excel</td></tr></tbody></table>• Selected Past Clients: Rishi Gohill, Gohill Trading (http://gohilltrading.co.uk/) Joe Branco, Forex Living (http://www.forex-living.com) Vedanta Trading Limited (http://www.masterthemarkets.net) Professor Paolo Zaffaroni, Head of Finance Group, Imperial College Business School• Future Projects: <table><tbody><tr><td>ARFIMA Signals applying the Kalman Filter</td><td>Matlab, C (MQL4), Java</td></tr><tr><td>Support Vector Machine Trading Strategy</td><td>Matlab, C (MQL4), Java</td></tr></tbody></table>• Courses: Artificial Intelligence Techniques for Traders (Ernest Chan): SVMs, Random Forests Machine Learning (Andrew Ng): Neural Networks, PCA, Clustering	Financial Investment Application (Equities)	Python	Pattern Recognition Trading Strategy (FX)	Python, C (MQL4)	Long / Short Memory Trading Strategy (FX)	C (MQL4)	Wavelet Analysis Trading Strategy (Futures)	R, TradeStation, C (MQL4)	Cointegration Analysis for Pairs Trading (Stocks, Commodities)	Matlab	Renko Bar Trading using JForex (FX, Indices, Commodities)	Java (JForex)	Economic Calendar Scraper for generating News Indicators (FX)	C (MQL4)	Backtesting using MeX to call C++ from Matlab (FX)	Matlab, C++, MySQL	Trading and Data Collection using the Betfair API (Tennis)	Matlab, XML, C#, Excel	ARFIMA Signals applying the Kalman Filter	Matlab, C (MQL4), Java	Support Vector Machine Trading Strategy	Matlab, C (MQL4), Java
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<p><i>THE INSTITUTE OF QUANTITATIVE TECHNOLOGY</i> (own business) <i>2020 to date</i></p> <p>BUSINESS AREA:</p> <p>QUANTITATIVE PRODUCTS</p>	<ul style="list-style-type: none">• Founder: we provide products and services for Algorithmic Trading and Data Science in MQL4 and Python. Website: https://theiqt.com• Highlight: Developed <i>Advantage</i>, an MT4 plugin which helps traders to:<ul style="list-style-type: none">• implement Algorithmic Trading with up to 85% less MQL4 code• handle risk management and scalping more easily <i>Advantage</i> is available at https://theiqt.com/advantage• Currently working on helping to develop 3rdSight, a prediction marketplace on the SingularityNET platform (https://singularitynet.io/)																						

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<p>THE PROFS (Tutoring Agency) 2014 to date</p> <p>BUSINESS AREA:</p> <p>QUANTITATIVE TRAINING</p>	<ul style="list-style-type: none">• 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.• 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/• Highlight: Assisted Global Head of Conduct at HSBC with Artificial Intelligence MSc courses:<ol style="list-style-type: none">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)2) Mathematical preparation for Robotics and Neural Networks exams, she received marks of 75% for both• Selected Client Backgrounds with numbers in brackets: Professional (40), LSE (30), City University / Bayes (13), UCL (8), King’s College London (6), Cambridge (2), Columbia (2)
<p>ACCENTURE 2004 – 2007 (<i>graduate</i>) 2001 (<i>internship</i>) 1999 – 2000 (<i>gap year</i>)</p> <p>BUSINESS AREA: MANAGEMENT AND IT CONSULTING</p>	<ul style="list-style-type: none">• Promoted to Consultant / Associate at the first opportunity• Sponsored throughout university based on Gap Year performance (1999-2000) Gained strong feedback on Internship (2001) leading to graduate job offer (2003)• Technologies: SQL, Business Objects Designer and Reports Developer (tools for automating queries and presenting reports), Business Objects Data Integrator (ETL tool), AutoIt• Areas of work:<ul style="list-style-type: none">- Business Intelligence (data warehousing, database management, reporting software)- Finance & Performance Management (business process analysis and design)- Change Management (training)- SAP (support of user transaction systems)• Client contact:<ul style="list-style-type: none">- Gained strong client feedback throughout (Warner Bros., Sky and BAE Systems)- 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- 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)- Directed onsite training and development of user training manuals for one client- Client company sectors: Media & Entertainment, Aerospace & Defence• Consulting Project Lifecycle phases: Requirements, Analysis, Design, Build, Deploy, Support• Software Development Lifecycle phases: Design, Build, Test, Deploy, Support• Courses: SQL, Dimensional Modelling (Ralph Kimball), ETL and Reporting (Business Objects), Consulting, Process Design