DR NIKHIL SHENAI

nikhil@theiqt.com

SUMMARY	PhD with strong Quantitative and Business skills, passionate about Quantitative Product Development
	Multi-disciplined in education (Cambridge, Imperial) and versatile with technology (C++, Python)
	Experienced in designing and implementing complex end-to-end solutions (IQT *Advantage*)
	in the fields of Data Science & Engineering, AI, and Algorithmic Trading
	Strong project management and client skills (Accenture, The Profs)

SKILLS

Quantitative:
[from PhD, MSc, MA, E K Technologies]

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

Technologies:
[from PhD, Accenture, E K Technologies]

C++, Python, SQL, Matlab, R, Java, JavaScript, MQL4, JForex, Cryptocurrency APIs, Betfair API, Web Scraping, Web Development, Business Intelligence & Data Warehousing, ETL

General:
[from PhD, Accenture]

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

MA 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++, Python, Java, SQL   (top 4000 out of 1.4M programmers)
Profile: link here
Trading: Received interest from Wiley & Sons Publishers for a book and course deal
Lead of London Systematic Traders meetup group (link here)
Training / Tutoring: Inaugural 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)

PERSONAL

Nationality: British   Gender: Male

CAREER HISTORY

THE INSTITUTE OF QUANTITATIVE TECHNOLOGY (THE IQT) *2018 to date* BUSINESS AREA: QUANTITATIVE PRODUCTS	• Founder & CEO • Products for Algorithmic Trading, AI and Data Science. Website: www.theiqt.com • Key offering: *Advantage*: a software library designed to simplify and extend algorithmic trading in MetaTrader 4. • Datafeeds, Books and eCourses will also be available for supporting *Advantage*.

E K TECHNOLOGIES
 2012 to date
 	
 BUSINESS AREA:
 	
 QUANTITATIVE CONSULTING
	• Founder & CEO
	
	 • Software Services for Trading and Data Science. Website: 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><tr><td>Kalman Filter applications for High Frequency Trading</td><td>Python</td></tr><tr><td>Data Aggregation (Sports)</td><td>Python, JavaScript</td></tr><tr><td>Pattern Recognition Trading Strategy (FX)</td><td>Python, MQL4</td></tr><tr><td>Long / Short Memory Trading Strategy (FX)</td><td>MQL4</td></tr><tr><td>Wavelet Analysis Trading Strategy (Futures)</td><td>R, TradeStation, 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>JForex</td></tr><tr><td>Economic Calendar Scraper for generating News Indicators (FX)</td><td>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></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, Former Head of Finance Group, Imperial College Business School
	
	 • Future Projects:
	
	 <table><tr><td>ARFIMA Signals applying the Kalman Filter</td><td>MQL4, Python, Matlab</td></tr><tr><td>Support Vector Machine Trading Strategy</td><td>MQL4, Python, Matlab</td></tr></table>
	 • Courses: Artificial Intelligence Techniques for Traders (Ernest Chan): SVMs, Random Forests
	     Machine Learning (Andrew Ng): Neural Networks, Recommender Systems
	     Statistical Learning (Hastie et al.): PCA, Clustering

DR NIKHIL SHENAI

nikhil@theiqt.com

THE PROFS (Tutoring Agency) *2014 to 2020*
 	
BUSINESS AREA:
 	
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.
	
	• Inaugural Top Tutor award in 2016. 1000+ Sessions, 80+ Clients.
	Strong results have been achieved by clients, visible on the "Testimonials" page of the E K Technologies website: link here
	
	• Highlight:
	Assisted Global Head of Conduct at HSBC with Artificial Intelligence MSc courses:
	    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 (30), LSE (19), City University / CASS (13), King's College London (6), UCL (7), Cambridge (2), LBS (1)

ACCENTURE *2004 – 2007 (graduate)* *2001 (internship)* *1999 – 2000 (gap year)*
 	
BUSINESS AREA:
 	
MANAGEMENT AND IT CONSULTING
	• 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:
	  - 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:
	  - 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 Warner Bros. Italy
	  - 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