

# Purnendu Nath

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Quantitative trader experienced in researching, developing and running model based systematic trading with hedge funds in London (global markets) and Hong Kong (pan-Asia). Proven team leadership and mentoring experience, with a passion for selling ideas. Looking to build a new business or expand an existing line of business.

## Professional & Academic

### Qualifications

<b>CFA Institute</b>	<b>Charterholder</b>	<b>CFA</b>	2006
<b>London Business School</b>		<b>PhD</b>	2004
<i>Doctor of Philosophy (Finance)</i> Thesis: "Microstructural Investigation of Trading in Equity and Bond Markets"			
<b>Institute of Actuaries, England</b>	<b>Fellowship</b>	<b>FIA</b>	2000
<i>Fellowship speciality – Investment and Asset Management</i>			
<b>Cass Business School, London</b>	<b>Distinction</b>	<b>MSc</b>	1998
<i>Master of Science (Mathematical Trading &amp; Finance)</i>			
<b>University of Cambridge, England</b>	<b>Class I</b>	<b>MA</b>	1997
<i>Master of Arts (Engineering &amp; Management Studies)</i>		<b>BA</b>	1993

## Industry Experience

3/07 – 6/08	<b>SHK Quant Asia Fund, Hong Kong</b> <i>Managing Director</i> <ul style="list-style-type: none"><li>Portfolio Manager.</li></ul>
5/06 – 11/06	<b>Credit Suisse, London</b> <i>Consultant to Design &amp; Develop Quantitative Trading Strategies within the Global Credit Proprietary Trading Group</i>
8/05 – 1/06	<b>Amplitude Capital LLP, London</b> <i>Systematic Trading System Algorithm Designer</i> <ul style="list-style-type: none"><li>Consultant at early stage systematic futures trading fund which has no human traders.</li><li>Hired to produce a dynamically self-recalibrating system prototype to replace statically optimized system.</li></ul>
1/05 – 5/05	<b>Independent Quantitative Research &amp; Trading, Mumbai</b> <ul style="list-style-type: none"><li>Researched and implemented a proprietary statistical arbitrage trading model for the world's most actively traded single stock futures market. (Sharpe Ratio of 2.4, Annualized Return of 30%.)</li></ul>
4/03 – 12/04	<b>KBC Alternative Investment Management, London</b> <i>Quantitative Trader</i> <ul style="list-style-type: none"><li>Client interaction with potential investors for new quant-driven fund launches.</li><li>Single-handedly developed proprietary long/short credit model and ran as proprietary trading book prior to merging into a Multi-Strategy Fund.</li><li>Developed and ran proprietary multi-factor model for Long Short (equity) Volatility Fund.</li></ul>
6/02 – 11/03	<b>Quantitative Trader, London</b> <ul style="list-style-type: none"><li>Traded global equity index products with leverage using proprietary model and own computer systems.</li><li>Turnover of USD26m of personal account to obtain 55% outperformance (with beta=1).</li></ul>
3/02 – 5/02	<b>Hedge Fund Research Centre, London Business School</b> <ul style="list-style-type: none"><li>Developed software tools to build optimal Mean-Conditional-Value-at-Risk portfolios for analysis of hedge fund industry risk and returns.</li></ul>

1/98 – 7/98

**HSBC Midland, London**

*Analyst, Market Risk Management*

- Implemented stress testing on the trading floor (Europe’s largest).
- Carried out backtesting of Value @ Risk versus realised P&L for *Basle Accord on Capital Adequacy*.
- Researched (by simulation) the impact of errors in correlation assumptions for rainbow options.
- Researched and implemented the use of Extreme Value Theory in explaining extreme returns in trading.
- Risk assessment of new exotic products of the Specialised Derivatives Group.

1/96 – 1/98

**Sedgwick Noble Lowndes Investment Strategy, London**

*Consultant*

- Stochastic asset/liability modelling of pension schemes to advise on their strategic asset allocations.

9/93 – 12/95

**Sedgwick Noble Lowndes, London**

*Trainee Actuary*

- Carried out statutory valuations of pension schemes and estimated the asset/liability transfers of pension schemes following mergers or acquisitions of sponsoring companies.

6/92 – 9/92

**National Physical Laboratory, London**

6/91 – 9/91

*Research Assistant, Department of Quantum Metrology*

3/89 – 9/90

- Research in the properties of superconductors for their application to metrology.
- Involved computer modelling, software testing and statistical analysis.

**Honors & Awards**

- (1999-2002) Economic & Social Research Council Scholarship.
- (1998) *Investment Management Programme Scholar* – London Business School.
- (1998) Institute of Finance & Accounting Scholarship.
- (1991, 1992) *Senior Wallace Scholarship* - University of Cambridge.
- (1991) *Emmanuel College Prize* - University of Cambridge.
- (1990) *Science & Engineering University Sponsorship* - National Physical Laboratory, London.

**Professional & Academic Activities**

- (2006-onwards) CFA examinations (freelance) lecturer in London and Hong Kong.
- (2001) Grading of scripts and guidance to students preparing for the Institute of Actuaries Fellowship examinations in Statistical Modelling, Stochastic Modelling, and Financial Economics
- (1998-2001) *Teaching Assistant* at the London Business School (for Corporate Finance, Entrepreneurial Finance, Equity Investment Management).
- (2001) Served as an expert witness on a legal case between two stock broking firms.
- (1998-2000) Freelance technical consultant to many UK insurance companies on investor compensation

**Computer Experience**

- UNIX and Windows/DOS operating systems.
- Visual C#, C++, Matlab, Visual Basic, VBA, SQL, DBArtisan, Powerbuilder, Stata, Gauss-X.
- Can code to Bloomberg API including tick data retrieval.
- Microsoft Office, Dreamweaver.

**Research**

Publications:

- *The Price of Future Liquidity: Time-Varying Liquidity in the U.S. Treasury Market*, Review of Finance (2005)
- *Are Price Limits Always Bad?*, Journal of Emerging Market Finance (2005)
- *Estimates of the Continuous Time Cox-Ingersoll-Ross Term Structure Model: Further Results for the UK Gilt-Edged Market*, Applied Economic Letters (2001)
- *How Your Mind Affects Your Wallet*, Management Next (2005)

Completed papers:

- “*High Frequency Pairs Trading with US Treasury Securities – Risks and Rewards for Hedge Funds*”
- “*Do Price Limits Behave like Magnets?*”
- “*Interdealer Trading in the UK Government Bond Market*”
- “*Mean Reversion in Inventory Risk Management: Evidence from the Trading Behavior of UK Government Bond Dealers*”

**References**

Dr. Narayan Y. Naik  
*Professor of Finance*  
*Director, Centre for Hedge Fund Research*

Dr. Bernd Hanke, CFA  
*Quantitative Equity Group*

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