

Harish Bhanderi

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Date of Birth: October 24, 1978
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EMPLOYMENT HISTORY

- Lecturer** University of Nairobi, School of Mathematics, College of Biological & Physical Sciences
Mar 10 to date
- Lecturer in Applied Mathematics Teaching:
 - First Year Mathematics & Engineering Students Mechanics & Statistics
 - Third Year Engineering Students Vector Calculus, Fourier Series, Laplace Transforms, Partial Differential Equations
 - First Year Mathematics Masters Students: Numerical Analysis 1
- Equity Exotic Derivatives Trader – Associate Level** Morgan Stanley International plc, London
Feb 06 to Feb 09
- Traded and managed risk of the global equity exotic derivatives book as part of the London trading team
 - Priced, market-made and executed exotic options on single-stocks and equity indices including quanto, asian, cross, outperformance, autocallable, best-of and worst-of options
 - Managed risks associated with exotic options including delta and gamma, equity correlation and implied volatilities, dividend risks, interest rate and currency exposures
 - Priced and traded hybrid derivatives: options on equity, commodity, rates and currency underlyings; and, managed associated greeks
 - Daily position management, profit-and-loss analysis, trading book maintenance and end-of-day sign-off
 - Created automated trading and risk-management tools to facilitate index rebalances, futures rolls, options expiries and single-stocks corporate actions
 - Developed a new platform for trading structured notes and OTC derivatives capable of trade capture and booking, straight-through processing, live valuations and web-click-to-trade functionality
 - Maintained and developed strong relationships with sales, risk-management, IT, operations and controller teams
 - FSA approved person
- Procurement and Accounts' Manager** Albatross Enterprises Limited, London, UK
Apr 02 to Dec 05
- Procured building and plumbing material for a construction company that is a general contractor and a building services contractor
 - Managed accounts of the company suppliers and improved company's credit lines by endeavouring timely payments to suppliers
 - Negotiated with clients to settle quickly outstanding balances
 - Deployed and managed building material, plant and equipment at construction sites
 - Prepared detailed quotations of building and plumbing works for residential and commercial properties
 - Project-manager at two construction projects: a residential property and an office refurbishment.
- Undergraduate Supervisor** Department of Engineering, University of Cambridge, UK
Oct 02 to Dec 05
- Conducted supervisions for Engineering and Mathematics Undergraduates
 - Conveyed complex concepts and ideas to students encountering them for the

- first time
 - Assessed written work, prepared and organised supervisions
 - Voted Best Departmental Supervisor and Demonstrator of 2005
- Applications' Mathematician**
Sunrise Systems Limited, Cambridgeshire, UK
Oct 01 to Mar 02
- Developed, maintained and supported an engineering software used extensively in the fire fighting industry
 - Tested industrial software to quality assurance standards
 - Tele-supported international clients
 - Worked independently on support queries and within a team during software development and maintenance
- Research Assistant**
Computer Science Department, University of Warwick, UK
Nov 00 to Jul 01
- Research focused on accelerating an industrial fluid dynamics solver
 - Reviewed current mathematical research and assessed feasibility of selected numerical algorithms
 - Demonstrated simple changes in numerical algorithms gave greatly improved computational efficiency
- Information Resources Assistant**
Euro-Par-Interiors Limited, London, UK
Summer 2000
- Initiated and assisted the computerisation of a paper-based accounting system
 - Surveyed staff roles to identify areas for automation and modernisation
 - Designed an information system to support accounts and data management
- Accounts Assistant**
Stanton Interiors Limited, London, UK
Summer 1999
- Assisted in checking and clearing end-of-year accounts of an office-fitting company with a £1.1m turnover
 - Negotiated with customers to settle quickly outstanding balances

EDUCATION

- Mar 02 to Dec 05 **University of Cambridge, Department of Engineering**
PhD in Engineering
- Improved fluid flow modelling over aircraft wings leading to more efficient wings
 - Conducted critical assessment of current numerical and experimental techniques, which led to the development and improvement of a research software code
 - Presented and published research findings at international aerospace conferences
- Oct 99 to Oct 00 **University of Oxford, New College**
MSc in Mathematical Modelling and Scientific Computing
- Dissertation focused on generating computational grids to calculate fluid flow
 - Implemented a novel method of producing solution-adaptive computational grids
- Oct 96 to Jul 99 **University of Cambridge, Gonville and Caius College**
BA (Hons.) in Mathematics – 2:1
- Part 1: First Class
 - Part 2: Upper Second Class
- Sep 90 to Jul 96 **Buckingham College Senior School, London**
- Five A Levels: 3 As and 2 Bs
 - Nine GCSEs: 8 As and 1 B

COMPUTING SKILLS

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|---|---|
| Numerical Software: Matlab, Maple | Authoring and Publishing: LaTeX, HTML |
| Languages: C++, Fortran 77/90 | Microsoft Applications: Word, Excel, Powerpoint, Project, Access |
| Operating Systems: Linux, Unix, Mac OS X, Windows XP | |
| Accounting Software: Sage Line 50 | Touch type: 70 wpm |

LANGUAGES

English (Native), Swahili (Conversational), Gujarati (Conversational), French (Basic), German (Basic)

SCHOLARSHIPS AND AWARDS

- Mar 02 Engineering and Physical Research Council and Airbus CASE Studentship, University of Cambridge
- Nov 00 CERFACS Industrial Research Scholarship, University of Warwick
- Oct 99 Centre of Industrial and Applied Mathematics Graduate Scholar, University of Oxford
- Jun 98 Elected Senior Scholar of Gonville and Caius College, University of Cambridge
- Jun 97 Elected Scholar of the Cambridge Commonwealth Trust, University of Cambridge
- Feb 96 Second Round in British Mathematics Olympiad
- Jan 96 Gold Award in National Mathematics Contest

PUBLICATIONS

- Bhanderi, H. and Babinsky, H. 'Improved boundary layer quantities in the shock wave boundary layer interaction region on bumps.' AIAA 05-4896, 2005.
- Bhanderi, H. and Babinsky, H. 'Improving the lag-entrainment method in the case of transonic shock wave/boundary layer interaction.' AIAA 04-2147, 2004.

HOBBIES AND INTERESTS

Swimming, current affairs, contemporary fiction, chess and travel

REFERENCES

Available on request