Adjunct Professor Adjunct Professor Quantitative Developer/Financial Engineer/Educator New York, NY "hands on" "quant" developer and educator with over 20 years of highly varied experience. Understands (and can explain) the analytics, the products, and the IT behind financial engineering. Authorized to work in the US for any employer Work Experience Adjunct Professor NYU TANDON ENGINEERING SCHOOL 2000 to Present Courses developed and taught: financial technology with object oriented design in C++ and Python, numerical methods in EXCEL/VBA, MatLab, options theory, and credit risk. Taught quant methods. Research: Python implementation of adaptive trinary trees. Contract Python Developer Bank Of America - New York, NY May 2018 to October 2018 Refactored and wrote unit tests for the Bank s credit risk framework for commercial loans; maintenance of framework as needed Contractor, Counterparty Credit Risk Backtesting BANK OF AMERICA September 2016 to December 2017 Design, Python 2.7 coding (including unit tests via Mock library) and reporting of expected positive exposure backtesting of OTC derivatives portfolio under Bank of America's proprietary financial software environment. Quarterly reporting of backtesting results. Visiting Assistant Professor of Finance NYU TANDON ENGINEERING SCHOOL August 2014 to May 2016 Classes taught: advanced derivatives, fixed income securities. Won $5000 incubator grant from the Institute for Management Accounting for research on accounting as a stochastic process. Contractor, Zinc Data Validation Team NYU TANDON ENGINEERING SCHOOL October 2012 to May 2014 Saved client about half a million dollars by taking over from a Big Four consultant to fulfill a regulatory requirement, the validation and documentation of equity, interest rate and F/X risk calculations in Zinc, Bank of America's SQL compliant enterprise risk repository, first with EXCEL/VBA, then with Python. Assumed primary responsibility for document describing underlying analytics and supporting spreadsheets. Manager KPMG - New York, NY April 2005 to February 2006 Assignments included the review of the Value at Risk (VaR) systems for two major banks and a major coal producer, the review of selected model validations for two major banks, and valuation of a wide variety of financial derivatives. Product Manager Lombard Risk Systems - New York, NY September 2004 to February 2005 Prepared quantitative specifications for a trading and position keeping system for synthetic collateralized debt

obligations; provided pre-sales support for prospective customers. Vice President, Quantitative Analysis/Risk Systems DEUTSCHE BANK 1994 to 2002 Delivered various market and credit risk systems, sometimes stepping beyond my role as a technologist to advise users of my systems on business issues, including methodology. Systems included: ? A RAROC calculator for the North American loan portfolio that improved Deutsche's loan portfolio revenue by $80 million. System put in production in New York, Toronto, Tokyo, and Singapore after a one year, on-time, on-budget development effort. Second version of calculator put in production in New York and Toronto, after a 4 month, on-time, on-budget development effort. ? Prepared trade data for capital adequacy reporting under Basel I. ? Devised and implemented methodology for monitoring repo credit risk ? FRA and forward F/X pricer used in New York, London, and Singapore, completed on schedule. HSBC, Assistant Vice-President, Quantitative Analysis Quant 1992 to 1994 on interest rate derivatives desk. Accomplishments included: ? formulation and implementation in C++ of two factor HJM model for pricing options on interest rate spreads, the convexity adjustment algorithm used by New York and London for their mark-to-market LIBOR yield curves, and the rich/cheap analysis of interest rate caps/floors (also implemented in C++) that made HSBC more than a million USD. Rich/cheap analysis included a new method of interpolating the LIBOR yield curve. ? Publication of article on implied volatility calculation that made "The Best of RISK Magazine". ? Transfer of London's structured products pricing system to New York, and participation in the sale of the HSBC Group's first index principal swap (IPS). Education PhD in Mathematics Courant Institute of NYU BS in Mathematics Massachusetts Institute of Technology Skills VBA (3 years), Python (2 years), C (4 years) Links http://arxiv.org/abs/0903.2243 Certifications/Licenses Series 7 License May 2002 to May 2004 Series 55 June 2002 to June 2004 Trader's license Patents Data compression method for use in a computerized informational and transactional network (#5537551) https://patents.justia.com/inventor/edward-d-weinberger 1996-07 A method for compressing and subsequently decompressing digital data communicated in an interactive computer network, the network designed to provide information and transaction services to a very large population of users. The method features steps for compressing bytes of network data before transmission by

substituting variable-length code words obtained from a fixed, look-up table, and, reconstituting the bytes using a fixed, decompression look-up table when the code words are received at the data reception site. Publications (bibliography of 28 publications available on request) Publications on quantitative finance and "fitness landscapes" (useful in studying biological evolution) Additional Information GARP FRM Certification;

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