GERMAN GUNIN

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SENIOR MANAGER, ADVANCED ANALYTICS AND MODELING

Financial industry professional with proven record of maximizing profits, cutting costs and eliminating inefficiencies.

Core Competencies

- Risk Modeling (credit risk modeling, default and fraud risk modeling, VaR, Monte-Carlo simulation, scenarios based analysis, sensitivity analysis, characteristic surfaces' analysis)

- Data Mining (statistical pattern recognition, k-nearest neighbors, Bayes classifier, associate rule learning, neural networks, segmentation, clustering)

- Applied Econometrics (multiple regression, logistic regression, cointegration, ARCH/GARCH)

- Time Series Analysis (ARIMA, adaptive filtering, auto-correlation, cross-correlation, change points' detection, Kalman filter, noise reduction)

- Quantitative Trading (alpha generation, long/short equity portfolios, pair trading, mean-reversion, pyramiding, momentum-contrarian models)

- Portfolio Optimization (linear and non-linear multi-dimensional constrained optimization, Markowitz, Sharpe, Black-Litterman models)

PROFILE

- Expert in predictive modeling, data mining and statistical analysis, principles and practices.

- Advanced skills in SAS, SQL, MATLAB, VBA, Excel and relational databases. Hands-on experience working with large datasets containing both quantitative and qualitative data, using multivariate, regression and hierarchical linear modeling techniques.

- Superior combination of analytical, numerical, evaluating and interpretative skills to collect and organize data from multiple sources and perform statistical and research analysis.

- Effectively manage time and multiple projects, set priorities, meet deadlines, and supervise others.

- Produce highly complex and comprehensive reports, make recommendations, prepare analytical and briefing materials for stakeholders.

- Excellent verbal and written communication skills to effectively communicate complex information or issues in a manner that is easily understandable to audience.

CAREER HISTORY

SENIOR MANAGER, ADVANCED ANALYTICS AND MODELING   **10/2009 – present**
The Bank of Nova Scotia, International Banking, Marketing, Toronto

The Bank of Nova Scotia (Scotiabank) is a major Canadian International Bank, with its executive offices in Toronto, ON, Canada. Scotiabank conducts business in approximately 50 countries around the world.

- Managed an array of marketing analytics projects from requirement definition to production delivery and supported Director in the development of overall work plan

- Analyzed the customer base across all product lines and all International Banking countries in Caribbean and Latin America to define varying segments including Market, Life Stage, Value and Behavior approaches

- Investigated statistical patterns in customers' behavior to target individuals with the highest propensity of acquiring particular products

- Developed a set of models for predicting customers' behavior to manage customers at risk of attrition **using statistical analysis and data mining techniques**

- Supervised the model risk and vetting with the team to ensure that proper processes were followed, documented and validations were in place and all production models continued to perform and recommended recalibration or re-build upon a necessity

- Participated in the development and maintenance of International Banking Marketing Data Marts, acting as a subject matter expert in the data mart build process and a key liaison with the teams in the country

CREDIT RISK ANALYST, Risk and Value Management　　　　　　　　**07/2008 – 04/2009**
Renaissance Credit, **Subdivision of** Renaissance Group, **Moscow**

Renaissance Credit is one of the fastest growing consumer finance companies in Russia and the CIS, offering installments, general purpose and automobile loans as well as mortgages and credit cards.

- Developed application score models for unsecured loans that significantly improved separation of good and bad lenders

- Developed models for recognition of early and late defaults applied to automobile loans

- Participated in the development of credit line assignment policy for installment loans whereby payment-to-income ratio modeling

- Developed income prediction models for installment loan lenders

- Developed response models for general purpose loan lenders for future targeting

- Monitored and analyzed results of existing credit risk scorecards to enhance credit policies

QUANTITATIVE ANALYST　　　　　　　　**11/2003 – 06/2008**
Alexandra Investment Management, St. Petersburg

Alexandra Investment Management is a New York, NY headquartered hedge fund which invests in public equity, fixed income, and hedging markets across the globe.

- Participated in the full development life cycle of computerized trading system for alpha generation in the US equity market (task definition, prototyping, implementation, acceptance testing and validation).

- Performed screening of the US equity market by sector (Basic Materials, Conglomerates, Consumer Goods, Financial, Healthcare, Industrial Goods, Services, Technology, and Utilities) to detect statistical arbitrage facilities.

- Developed efficient equity valuation models based on combination of fundamental and technical analysis to recognize mispriced equities.

- Developed market neutral trading strategies for equities. These strategies successfully generated an average annualized return of 20% (after transaction costs were deducted).

- Developed model validation procedures and algorithms to evaluate performance and statistical significance of trading results.

- Prepared analytical reports and investment recommendations.

FINANCIAL ENGINEER   **04/1999 – 10/2003**
Artificial Life, Inc., St. Petersburg

Boston, MA headquartered artificial intelligence solutions' provider for investment banking industry. Top customers include UBS Warburg, CSFB, LGT Castle Funds, Advance Bank.

- Participated in the design, development and implementation of ALife PortfolioManager™, a web-based portfolio management product used by large banks as an integrated platform for selecting and managing portfolios of equities and funds.

- Developed decision tree like rule based system for segmentation of potential investors (self-made millionaires with minimum 3 million dollars of investment capital) into clusters depending on their personal risk attitude.

- Developed an algorithm for an efficient frontier calculation in real time for 500+ assets subject to constraints.

- Developed an analytical framework for automated selection of artificial neural network's architecture applied to equity price forecasting.

EDUCATION

Ph.D. in Economics, Specialty in Mathematical and Instrumental Methods of Economics   **2005**
Faculty of Economics, Department of Operations Research in Economics
St. Petersburg State University of Engineering and Economics
Thesis: "Portfolio Selection Models For Individual Investors"

M.Sc. in Physics (Diploma of Excellence)   **1994**
Faculty of Physics, Department of Statistical Physics
St. Petersburg State University

Program: Mathematical Models in Economics and Financial Engineering   **1994 – 1997**
Faculty of Economical Theory, Department of Higher Mathematics
St. Petersburg University of Economics and Finance