

ADAM N. ROSENBERG, Ph.D.

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SUMMARY OF QUALIFICATIONS

- Skilled in the design, development, and delivery of decision support systems which have added substantially to the bottom line of employers and their customers.
- Able to take complex problems and deliver effective mathematical solutions which stand alone or can be embedded in software systems.
- Individual project work as well as teamwork to complete large optimizations, large and intricate simulations, complex analyses, and small tools that save time.

WORK EXPERIENCE (FULL TIME)

Predictive Science Analytics, Scientist, 2011-present.

- Investigating mathematical models for pet-care optimization.

US Airways, Scientist, 2010-2011.

- Retail-science model of airline booking yield management.
- Competitive airline-booking simulation driven by price.
- Testing bid-price algorithms and demand-elasticity models.
- Group consultation on mathematical algorithm proposals.
- Identified \$300 M+ in revenue-management heuristic changes.

Blackboard, Incorporated, Consultant, 2010.

- Investigate algorithm issues for Blackboard software.
- Work with planners on new release features.

MyWorld Investing, Consultant, 2009.

- Analysis of commodity investing with collateral loan.
- Evaluation of asset forecasting to portfolio value over time.

Property Informatics, Chief Scientist, 2008 through 2009.

- Analytic decision support for commercial real estate.
- Medical site selection based on retail placement model.
- Forecast commercial real estate using time series.

SAP/KhiMetrics, Staff Scientist, 2003 through 2008.

- Tens of millions of dollars benefit credited by clients.
- Sales aggregation model (SAM) data cleansing system.
- Markdown optimization engine (MOE) for end-of-life products.
- Promotion optimization engine (POE) for products on sale.
- Supported analytic work on forecast confidence intervals.
- Replenishment optimization engine (ROE) prototype.

- InterContinental Hotels Group*, Technical Advisor, 2000 through 2003.
- Simulation of hotel bookings to test revenue management strategy.
 - Rate aggregation for yield management earns millions monthly.
 - Developed price supports for low demand after 2001 September 11.
 - Started design of group-bookings expected to earn tens of millions.
 - Worked with hotel brand managers to explore pricing strategies.
 - New optimizer many times faster with better explanation of results.

- CANAC, Inc*, Principle Consultant, 1999 through 2000.
- Continued work on rail line simulation from Provar (below).
 - Extended model to deal with long trains on short tracks.
 - Worked on database and interfaces for line simulation.
 - Designed and developed graphical tool for interlockings.

- Provar, Inc*, Senior Consultant, 1997 through 1999.
- Designed and wrote rail line simulation for BNSF Railway.
 - Developed sophisticated rail dispatch strategy used in simulation.
 - Designed and wrote image processing for flood plain certification.
 - Statistical used-car “residual” valuation for AutoNation USA.

- InterDigital Communications Corporation*, Staff Scientist, 1995 through 1997.
- Created advanced capacity model for CDMA mobile network.
 - Geographic statistical capacity for CDMA using matrix equilibrium.
 - Simulation of power control algorithms for CDMA mobile system.

- Northwest Airlines*, Senior Consultant, 1991 through 1995.
- Airline booking simulation of full-airline flight network.
 - Yield management optimization earned \$30M/year during 1993-2005.
 - Delay/cancellation reporting supported maintenance decisions.
 - Jet engine reliability study helped forecast engine removals.
 - Many computer tools supported Schedule Planning and Marketing.

- AT&T Bell Laboratories*, Member of Technical Staff, 1982 through 1991.
- Designed and wrote airline planning system for two airlines.
 - Economic and network design studies for AT&T long distance.
 - Simulations influenced design of self-healing ISDN networks.
 - Mobile telephone analytic studies in cellular’s early days.

EDUCATION

1983 September, Ph.D. in Operations Research from Stanford University

1979 June, M.S. in Operations Research from Stanford University

1978 June, A.B. in Mathematics from Princeton University

BOOK PUBLICATION

Adam N. Rosenberg and Sid Kemp, *CDMA Capacity and Quality Optimization*, McGraw-Hill Telecom Engineering, 2002.

AWARDS

U. S. Patent 8,082,175 for Retail Promotion Optimization in 2011 for SAP.

U. S. Patent 7,912,748 for Retail Markdown Optimization in 2011 for SAP.

Four AT&T Bell Laboratories Individual Performance Awards, 1984-1991.

U. S. Patent 4,182,517 for Articulated Parallelogram Tonearm in 1980.

Graduated *Cum Laude* from Princeton in 1978.

COMPUTER EXPERIENCE

- Languages: extensive experience in FORTRAN and C.
- Database: SQL, Oracle, ODBC, PostgreSQL, libpq C library.
- Systems: Linux, UNIX, IBM AIX, DOS/Windows, VAX/VMS.
- Environments: UNIX shell, JCL, IBM ISPF, X-Window.

REFERENCES

Available on request.