

Senior SAS and Python Data Scientist / Application Architect / Credit Risk Project Consultant Senior SAS and Python Data Scientist / Application Architect / Credit Risk Project Consultant Senior SAS and Python Data Scientist / Application Architect / Credit Risk Project Consultant - Bank of America Parsippany, NJ Highly Skilled M.S. - Economics with Over 34 Years of Experience as a Data Scientist, SAS Developer, Statistician, Quantitative Demand Forecasting Analyst, Credit Risk Forecasting Analyst, Database Marketing Analyst, Market Research Analyst, Pricing Analyst, Response Modeler, Database Manager, Project Manager, Staff Manager/Trainer, Software/E-Commerce Developer, E-Marketing/Web Analyst Specializing in Data Science, Machine Learning, Data Analytics, Data Mining, Informatics, Business Intelligence, Predictive Modeling, and Customer Segmentation. Work Experience Senior SAS and Python Data Scientist / Application Architect / Credit Risk Project Consultant Bank of America 2019 to Present Work in Global Risk Analytics Team as part of a System Migration Project to move CCAR Credit Risk Machine Learning Modelling programs and files from a SAS coding environment to a Python coding environment. Build and Analyze SAS and Python programs as well as Data Lineage Flow Charts and Statistical Model Documentation in an effort to define and document which databases are being utilized for which CCAR Credit Risk Models. Usage of SAS, Python, Tableau, Microsoft Excel Macros, Pivot Tables, Vlookups, and Hlookups, Vertica, and Hadoop Hive SQL. Senior SAS Statistical Credit Risk Modeller / Digital Media Data Scientist / Project Consultant TD Bank 2018 to 2018 Build Logistic Regression Statistical Machine Learning Models Analyzing Customer Checking Account Attrition Data. Analyze Digital Media Marketing Data. Strong Usage of SAS Macros, SAS Base, SAS Stat, Proc Logistic, Proc Reg, Proc Anova, Proc Varclus, Proc SQL, SAS Enterprise Guide, SAS Enterprise Miner, Tableau, Microsoft Excel Macros, Pivot Tables, Vlookups, and Hlookups. Senior SAS Project Consultant Wyndham Worldwide - RCI 2017 to 2018 Build and Ftp Marketing List Audience Files to Company List Management Vendors using SAS Programming Software. Prepare Marketing Analysis Adhoc Reports using SAS Base and SAS Macros. Document All Processes. Strong Usage of Proc SQL, SAS Enterprise Guide, Excel Macros, Pivot Tables, Vlookups, Hlookups. Senior SAS Quantitative Data Analyst / Software Developer / Project

Consultant Sprint Corporation 2017 to 2017 Extract, Transform and Load (ETL) Millions of Records of Sprint Assurance Wireless Data using SQL and SAS Software. Analyze and Track Customer Subscriber-Based Churn using SAS Base, SAS Macros, SQL Server, Teradata, and Oracle Software. Usage of Microsoft Excel Macros, Pivot Tables, Vlookups, and Hlookups. Senior SAS Data Science and Machine Learning Project Consultant Knowledge Group 2017 to 2017 Use R, Python, SAS v9.4, Matlab, Tableau, SAS Visual Analytics, SQL, MS Excel Pivot Tables and Spotfire to analyze Pharmaceutical Real World Evidence (RWE) Medical Outcome Patient Data. Utilize Statistical Modelling Machine Learning Methodologies to Maximize Revenues for Financial Industry Investment Bank Clients. Senior SAS Data Scientist / Machine Learning Credit Risk Statistical Modelling Project Consultant Bank of New York Mellon 2015 to 2016 Develop SAS Statistical programs to build hundreds of Econometric Forecasting Models and Simulations for Corporate Treasury's Investment Bank Portfolio. Products include ABS, MBS, CMBS, RMBS, MUNIs and International. Econometric Time Series Models predict potential future Business Losses in response to the Federal Reserve's Dodd-Frank CCAR Initiative for Investment Portfolio Stress Test Modelling. Heavy usage of Moody's Analytics data. Statistical Model Predictions and In-Sample Back-Testing Model Validations include various Financial Credit Risk and Compliance Stress-Testing Scenarios given by the Federal Reserve. These scenarios include Baseline Bank Holding Company Market Forecasts, Adverse Scenario Market Forecasts, and Severely Adverse Scenario Market Forecasts. SAS v9.4, SAS Enterprise Guide, SAS Base, SAS Macros, SAS STAT, SAS ETS and SAS Graph. Heavy Usage of SAS Proc SQL, MS Excel: Hlookups, Vlookups, and Pivot Tables, MS Excel VBA. LGD Model Documentation Editor. Usage of Black Rock Aladdin Portfolio Management System. Senior SAS Data Scientist / Machine Learning Marketing Data Analyst Project Consultant Predictive Modelling of Device Technology Data 2015 to 2015 Use Hadoop Hive SQL to Extract and Summarize Device Performance Transactional Data for Predictive Modelling of Device Technology Data. Develop Predictive Modelling Machine Learning Equations in SPSS Modeler. Usage of Tableau, Visio, and Microsoft Excel for Developing Graphs, Data Presentation, and Building Report Requirements. Develop Graphs and Charts and Present to Top Management regarding Human

Resource Market Trends. Usage of Oracle 11g PL/SQL, Toad, Cognos, and Endeca for Report Production. Use Oracle 11g SQL Developer Data Miner to Develop Predictive Attrition Models and Scoring Equations for Human Resource Data Warehouse Variable Reduction and Scoring. Usage of Regression Analysis and Decision Tree Modelling, Cluster Analysis and Factor Analysis. Use SAS Enterprise Guide, SAS EBI, Putty, Korn Shell on UNIX Solaris to Develop Analyses and Stored Procedures for Data and Text Mining, Customer Segmentation, and Predictive Churn Models. Usage of FTP, SQL for the Creation of Adhoc and Dashboard Reports from Teradata Database. Use ETL to Integrate Millions of Records from Numerous Databases into One Main Database. Use SAS Proc MI to Develop Algorithms to Impute Missing Values for Company Precision Project. Develop Customer and Prospect Profiles using Company Cell Phone Data and Acxiom Infobase Personix Cluster Data. Present all findings to Retail Clients for E-Commerce Direct Marketing. Use SAS v9.3, Factor/Cluster Analysis, Logistic/Linear Regression, Tree Models, SAS Enterprise Miner, SPSS Modeler, SQL, R, Hadoop, Alteryx, MS Excel Pivot Tables, MS Access, Ultra Edit. Develop, Document, and Train Staff on Computer Programming Algorithms and Business Processes. Verizon / Verizon Wireless 2013 to 2014 Senior SAS Reports Developer and Quantitative Digital Marketing Data Analyst Project Consultant JP Morgan Chase 2012 to 2012 Use SAS Enterprise Guide, UNIX, SAS EBI, SAS Data Integration Studio and Tableau to Develop Reports, Analyses, and Stored Procedures for JPMC Financial Retail/Credit Card Digital Direct Marketing/E-Commerce Products. Fulfill Business Requirement Documentation (BRDs). Use ETL to Integrate Millions of Records from Numerous Databases into One Main Database. Interface with SharePoint, Web Portal, Clear Case Change Control Software, MS Excel Pivot Tables. Usage of FTP, Ultra Edit, Putty, Toad, DB2, PL/SQL, ORACLE, SQL Server and Teradata. Develop, Document, and Train Staff on Computer Programming Algorithms and Business Processes. Present all Findings to JPM Chase Financial/Credit Card Digital Marketing/E-Commerce Team. Senior SAS Machine Learning Data Scientist / Mobility Data Analyst / Software Developer AT&T Labs 2011 to 2012 Build Predictive Logistic Regression, Tree and Neural Network B-to-B Direct Mail Churn Models using Enterprise Mobility Network Data, Corporate Revenue Data, and Market

Research Data. Present All Findings to Client. Model Lift Gains Charts Consistently Exceeded Expectations. Use ETL to Integrate Millions of Records from Numerous Databases into One Main Database. Use SAS, UNIX, Putty, Korn Shell Scripting, PL/SQL, ORACLE, Teradata, SQL, SAS Enterprise Miner, Tibco Spotfire Miner, FTP, R, S+, Python, AWK, Excel Pivot Tables, PowerPoint, Irfanview. Develop, Document, and Train Staff on Computer Programming Algorithms and Business Processes. Tax Technology Project Consultant Verizon / Verizon Wireless 2010 to 2011 Utilize COBOL and SAS Programming for Corporate Tax Technology Department Data Warehouse Extraction, Transformation and Loading (ETL) of Tax Audit Data. Convert Millions of Records of Business and Residential Point of Sale Tax Register Data from Mainframe Files to MS SQL Server 2005/2008 Database for Tax Audit Purposes. Conduct System/Unit Testing. Build Excel VBA Macros to Automate Tax Register Data Retrieval. Heavy Usage of COBOL, SAS Base, SAS Macros, JCL/MVS /TSO/ISPF, DB2, SQL, SYNC SORT, NDM, FTP, MS Excel, MS Access, SharePoint. Develop, Document, and Train Staff on Computer Programming Algorithms and Business Processes. Database Marketing Project Consultant Dun & Bradstreet 2009 to 2009 Develop Sales/Marketing Direct Mail CRM Campaign Lists for B-to-B Sales and E-Commerce. Integrate Millions of Records from Numerous Databases into One Comprehensive Database. Segment Marketing and Sales Contacts by SIC Codes and Transaction-Level Point of Sale Data. Build MS Excel Macros for Automation of Management Dashboards and Adhoc Reports. Extract Data from Corporate Database. Strong Usage of SQL Server; ODBC; MS Access: SQL, Macros, Queries; MS Excel: Macros, Visual Basic, VB Scripting, VBA, Pivot Tables, Vlookups. Develop, Document, and Train Staff on Computer Programming Algorithms and Business Processes. Senior SAS Data Scientist / Machine Learning Statistical Modeller and Software Developer Novartis Pharmaceuticals Corporation 2005 to 2008 Compile and Analyze IMS Xponent Prescription and Sample Data, Medco Prescription Data, IMS Physician Group Practice Data, Sales Force Call Data, IMS PlanTrak PBM Payer-Based Health Claims Data, IMS DDD Outlet Data, McKesson Voucher Data, ImpactRx Speaker Data, LASH Specialty Pharmacy Transactional Point of Sale Data; Medicare Part D Data, Dendrite, SDI, NDC, and Genentech Time Series Longitudinal Patient Data.

- * Analyze Market Research and WebMD Data and Present Best Target Physicians to Field Sales for Sales and E-Commerce Promotions. Develop Targeted Direct Mail and E-Commerce Contact Lists.
- * Utilize Data Mining and Statistical Multivariate Modeling Mix Methodologies to Evaluate Company ROI and Promotion Response for Various Web/E-Commerce and Speaker Direct Marketing CRM Campaigns Targeted to Specialized Physicians. Segment Data using Cluster Analysis as Required.
- * Build Scorecards and Increase Market Share in the Oncology, Hematology, Respiratory, Dermatology, Cardiovascular, Metabolic and Neuroscience Therapeutic Areas.
- * Build Test/Control Samples (A/B Tests), Design and Build Databases using Patient-Level Transactional Point of Sale Data, Physician-Level Prescription Data and Outlet-Level Data.
- * Conduct and Present Multivariate Statistical Analyses and Market Segmentation/Optimization Studies to Support Product Marketing/Sales. Design Sales Force Sizing/Structuring Analyses.
- * Develop Competitive Intelligence Market Share, Pricing, and Forecasting Models.
- * Track Patient Compliance, Persistence, Adherence, and Dosing Levels. Usage of ICD-9 Codes.
- * Build MS Excel Macros to Automate Management Dashboards and Adhoc PowerPoint Reports.
- * Develop, Document, and Train Staff on Computer Programming Algorithms and Business Processes.
- * UNIX, SAS v9 Base: SQL, ODS, DDE, Freq, Means, Univariate; SAS Stat: TTest, GLM, ANOVA, ANCOVA, Cluster Analysis; SAS Macros, SAS Enterprise Miner, SAS Connect, MS Excel: Macros, Visual Basic, VB Scripting, VBA, Pivot Tables, Vlookups; MS Access, PowerPoint, MicroStrategy.
- * Received an "Above and Beyond" Recognition Award for Developing a New Innovative Methodology to Create a More Unbiased Control Group Selection Process for Physician Sampling. SAS Developer Project Consultant Morgan Stanley Corporation 2005 to 2005
- * Used SAS Programming for Company Data Warehouse Extraction, Transformation, Loading (ETL).
- * Developed Business Processes and Stored Procedures.
- * Tested Algorithms to Track Market Surveillance and Support Audit Regulations for AML Brokerage Point of Sale Transactions. Conducted System/Unit Testing.
- * Usage of SAS Enterprise Guide, SAS Base, SAS Macros, UNIX, UDB/DB2/SQL, ORACLE, PL/SQL. Statistical SAS Programming and Analysis / Quantitative Database Marketing Project Consultant Bookspan 2005 to 2005
- * Developed and Presented Corporate DTC High Credit Risk Screening

Models & Customer Profiles. * Credit Risk Models Increased Profits Via More Selective Database/E-Commerce Marketing. * Utilized SQL, EDA, Linear and Logistic Discrete Choice Regression Modeling Mining In-House Transaction-Level Point of Sale Credit Data on IBM Mainframe. * Built MS Excel Macros to Automate Graphing/Adhoc Reporting. * SAS Base, SAS Stat, SAS Macros; JCL/MVS/TSO/ISPF SAS Data Scientist and Machine Learning Database Marketing ROI Consultant Westhill Marketing Sciences 2003 to 2004 Designed and Implemented Analytic and Statistical Multivariate Modeling Solutions for Market Research CRM Brand Panel Studies for the Pharmaceutical and Retail Consumer Goods Industries. Quantified Advertising Dollars and Web/E-Commerce Sales Relationship using Time Series Data. Estimated ROI for Retail Consumer Goods Chain (Circuit City). Presented All Findings to Client. Analyzed Market Research Survey Data to Increase Client Market Share by Quantifying Relationship Between Brand Awareness and Brand Consideration to Product Purchase Intent for Business to Business Pharmaceutical (Cardinal Health) Customers. Presented All Findings to Client. Statistical Modeling Methodologies Included Estimating Polynomial Distributed Lag Models, Ad Stock Models, and other Non-Linear Regression Models. Strong Usage of Cohort Data. Built MS Excel Macros to Automate Graphing/Adhoc Reporting. Utilized PC SAS, SAS Base (Proc Freq, Proc Means, Proc Univariate), SAS Macros, and SAS Stat (Proc Anova, Proc PLS, Proc Reg) to Automate Analyses, for Adhoc Time Series Reporting, for Data Mining, and for Statistical Modeling. Segmented Data by Media Codes, as Required. SPSS, MS Excel Macros, Visual Basic, VB Scripting, VBA, Vlookups; PowerPoint, Curve Expert. Vice President, Project Manager - Marketing Chase Home Finance 2003 to 2004 Gathered Requirements and Provided Analytic Support to Top Management via the Publication and Presentation of Monthly Business MIS Audit Reports with Analytic Highlights on Payoffs, Recaptures, Streamline, and Home Equity Utilization for Mortgage and Home Equity Products. Tracked, Monitored, and Re-Priced Home Equity Line of Credit Revenue at the Channel Level, Analyzing both Customer Level and Transaction Level Point of Sale Data (50 MM+ Records).

Built and Presented Monthly Audit Reports to the Mortgage Retail Finance Department to Track Trailer Commissions at the Loan Officer Level for Chase Refinance Customers. Responsible for

the Programming of an Automated Report Process for Loan Officers to Track their Accounts via the usage of Actuate, Business Objects and Cognos. Analyzed Call Center Market Research Survey Data to Optimize Call Center Performance. Built MS Excel Macros for Automation of Management Dashboards and Adhoc PowerPoint Reports. Gathered Requirements and Managed Mortgage Recapture Data Mining Study of Refi vs. Purchase Behavior of ex-Chase Home Finance Customers working closely with Outside Data Vendors. Developed and Presented Marketing Profiles of Mortgage Union Customers to Direct Mail CRM Campaign Managers for DTC Target Marketing Purposes. Managed the Analysis of Mortgage/Home Equity Share Accounts and the Building of a Home Equity Line of Credit Utilization Forecasting Model. Produced and Presented In-Depth Analyses of Mortgage Recaptures to Campaign Managers using Infobase and Microvision Data (similar to Claritas Prizm Clusters) to Segment Chase Mortgage Customers by Financial Behavior Categories. Developed Scorecards and Segmented New Chase Home Equity Customers by SPP Score. Evaluated SPP Scoring Model Efficacy for Home Equity Direct To Consumer Mailings. Gathered Requirements, Developed, and Managed File Scoring Business Process of Internal and Outside Vendor Discriminant Analysis Scoring Models. Discriminant Analysis Models consisted of a Set of Equations where Each Equation Identified a Financial Customer Type (similar to Claritas Prizm Clusters). Segmentation Models Increased Response Rates to DTC Campaigns. UNIX Shell Scripting, ORACLE, PL/SQL, UDB/DB2/SQL, SAS Base: SQL, SAS Stat, SAS Macros; CHAID, Excel Macros, VBA, Pivot Tables, Vlookups, Access, PowerPoint, MS Project, Visio. Hands-on Project Manager with a Staff of Three SAS Analyst/Programmers. Director of Programming TCI 2000 to 2003 * Gathered Requirements, Designed, and Deployed Customer Specific Programming Systems, Business Processes, and ETL to Support Company Operations in the Implementation of Bad Pay/High Credit Risk Scoring Solutions for Direct Marketing/E-Commerce CRM Clientele. * Gathered Requirements, Developed and Maintained Company Real-Time Automated Client-Customized E-Commerce DTC Credit Risk Order Screening and List Screening Scoring Programs. * Gathered Requirements and Automated Customized E-Commerce Order and List Credit Risk Scoring Solutions for Direct Marketing Clients using Perl, Java, JavaScript, XML, HTML,

FTP, PGP Encryption, Unix Shell Scripting, Cron, Autosys, Python, MYSQL, PHP, and SAS on Linux. * Wrote Object-Oriented Python Code and APIs to Trigger Alarm Once the Transmitted File Arrived at the Company Website via Ftp, De-Crypted the Encrypted Data, Cleansed and Address Standardized the Data, Loaded the Cleansed Data from a Flat File into MYSQL, Overlaid the File with Credit Risk Screening Data, Scored the File, Re-Encrypted the File and Transmitted the Scored File via Ftp to the Client Tcp/Ip E-CommerceWeb Address in Real Time. * Designed and Produced All In-House and Third Party Databases including InfoUSA US HH Database - 90 MM+ Records and Axiom Infobase Data (similar to Claritas Prizm Clusters). * Loaded, Audited, Cleansed, Built Data Models, and Standardized Raw Data to Ensure Data Quality/Integrity throughout Data Warehouse. Re-Coded Database Production from Mainframe Platform to Red Hat Linux using MYSQL/ Python. Implemented Address Standardization Software. * Designed and Enhanced PC-Based File Tracking Systems using C and C++. Developed GUIs using PHP and MYSQL. Automated VSE Mainframe Jobs using Easytrieve, Syncsort, Group1, COBOL, JCL/MVS/TSO/ISPF; SAS Base: SQL, ODS; SAS Stat: Proc Reg, Proc Logistic; SAS Macros. * As Director of Programming Additional Responsibilities Included Gathering Requirements, Hiring, Hands-on Training, and Staff Supervision. Hands-on Project Manager and Systems Developer. Assistant Vice President, Credit Risk Forecasting Analyst Citibank 2000 to 2000 * Developed Predictive Machine Learning Regression Model Scorecards using Time Series Credit Data for Delinquency, Contractual and Accelerated Write-Offs, and Bankruptcy Customer Segments. * Forecasted Greatest Credit Risk in Credit Card Portfolio using Transaction-Level Point of Sale Data. * Presented and Reconciled Credit Risk Forecasts with Collections and Audit Departments. * Built MS Excel Macros for Automation of Forecast Reporting. SAS Base, SAS Stat, SAS Macros, UNIX, Shell Scripting, UDB/DB2/SQL, VB Scripting, VBA, Pivot Tables, Vlookups. Database Marketing Manager UNZ & Company 1997 to 1999 * Managed Company Contact Database for \$4MM Import/Export/Hazmat Government Compliance Firm Specializing in Business to Business CRM Direct Marketing/E-Marketing. * Segmented Marketing Database Using In-House Transaction-Level Point of Sale Data as well as Dun & Bradstreet SIC Data for Data Mining/Profiling of Customer Database.

Customer Profiles led to More Profitable List Selects and More Profitable Marketing and Sales Account Management. * Analyzed Marketing Campaign Results to Improve Direct Marketing Response Rates. * Managed List Brokers to Identify Most Lucrative B-to-B List Opportunities for Product Marketing. * Implemented Market Research Surveys to Expand Company Knowledge of Customer Base and Customer Supply Chain/Logistics. Implemented Third Party Vendor Target Marketing Software. * Member of Company Senior Management Team. Developed and Presented Marketing Analyses and Adhoc Reports to Top Management. Built MS Excel Macros for Database Reporting. * Usage of SQL, SQL Server, MS Access, ODBC, Foxpro, Excel Macros, Visual Basic, VB Scripting, VBA, Vlookups, Crystal Reports, Stored Procedures, ONYX, PowerPoint. and MapInfo Software. Senior SAS Programming Marketing Project Consultant Chase Manhattan Bank 1997 to 1997 * Integrated Multiple Company Files from Various Data Sources as Part of Post Chase-Chemical Merger Effort to Consolidate Home Equity Line/Loan Data into a New Fully Integrated Database. * Developed Business Processes and Automated Customized Adhoc Reports for Marketing Managers. * SAS Base , SAS Macros, SYNC SORT, JCL/MVS/TSO/ISPF: IBM Mainframe Environment. Senior Marketing Data Scientist / Machine Learning SAS Software Developer Time Warner Inc 1991 to 1997 Gathered Requirements, Developed, Validated, Maintained, Enhanced, and Presented Market Segmentation Promotion Response CRM Customer Retention and Customer Acquisition Logistic Regression Discrete Choice Models, CHAID, Neural Network and Discriminant Analysis Database Scoring Models. Utilized the In-House Mainframe-Based Corporate Database, US Census-Based Demographic Data, Claritas Prizm Cluster Data and Nielsen Ratings Data. * Developed Customer Profiles and Presented them to Product Managers to Improve Direct Marketing Campaign Promotion Response Rates. Worked with Product Managers to Develop Test/Control Market Research Methodologies (A/B Tests) and Sample Sizing. Corporate Multivariate Models Consistently Increased Direct Marketing Response Rates for Publishing (Magazine, Book, Catalog) as well as Entertainment Products (Music, Video) for B-to-C and B-to-B Direct Marketing. * Gathered Requirements and Created New US Census-Based Variables for Statistical Modeling using Factor/Cluster Analysis on IBM Mainframe

Data. Segmented Data by Media Codes, as Required. Developed Data Mining Processes to Improve Modeling Methodologies and Data Quality. Set up and Updated Department Geocoding Software. Translated COBOL Record Layouts to SAS. * Used SAS Base (Proc Tabulate, Proc Freq, Proc Means, Proc Univariate), SAS Stat (Proc Reg/ Proc Logistic/Proc Factor/Proc Discrim/Proc Cluster), SAS Macros, JCL/MVS/TSO/ISPF -Mainframe. * Utilized SYNCSORT and EASYTRIEVE Software to Read in and Process Files with 90 Million Plus Records. Used SI-CHAID and CART Software for Exploratory Data Research. * As Senior Marketing Analyst, Additional Responsibilities Included Gathering Requirements, Hiring, Hands-On Training and Staff Supervision. Hands-on Project Manager and Systems Developer. Market Analyst American Express TRS Company Inc 1990 to 1990 * Developed and Presented Direct Marketing CRM Segmentation Models and Customer Profiles. * Utilized Discrete Choice Logistic Regression and Factor Analytic Scoring Models to Raise Direct Marketing CRM Campaign Promotion Response Rates for Financial, Travel, & Publishing Products. * Utilized SAS, JCL/MVS/TSO/ISPF on an IBM Mainframe to Extract Demographic and Company Product Data for Data Mining and to Build Predictive Segmentation Models. * SAS Base, SAS Stat (Proc Reg/Proc Logistic/Proc Factor/Proc Cluster), SAS Macros. AT&T 1987 to 1990 Statistician / Data Scientist Consultant Macro Systems, Inc 1986 to 1987 * Designed and Implemented Quality Control Models, Statistical Regression Machine Learning Models, and Market Research Survey Analysis Designed to Monitor and Improve Pell Grant - U.S. Department of Education; Unemployment Insurance - U.S. Department of Labor; Child Support - State of Massachusetts Welfare Dept; and Rural Hospital Programs Evaluation -U.S. Dept of Health. * Heavy Usage of SAS BASE, SAS STAT (Proc ANOVA, Proc REG), SAS MACROS on a VM/CMS Mainframe. Used SPSS Software to Track and Analyze Market Research Survey Results. * Utilized dBase to Build a Database for the Analysis of Massachusetts State Child Support Data. * Co-authored and Presented Final Report to the U.S. Department of Labor on the Effectiveness of Various State Unemployment Insurance Programs. International Economist U.S. Department of Commerce 1985 to 1986 Prepared and Presented Policy Papers for Internal Government Use as Part of a Government/Private Sector Team as a member of the International Trade Administration.

Research Focused on U.S. Industry Market Access Concerns in the European Telecommunications, Biotechnology, Manufacturing, and Agricultural Market Sectors. SAS Marketing Data Scientist and Predictive Machine Learning Modelling Forecaster 1984 to 1985 Developed, Maintained, and Enhanced VM/CMS Mainframe-Based Econometric/Statistical Time Series Demand Forecasting Models to Predict Company Revenue and Volume Market Share. Usage of Wharton Econometric Data and In-House Market Research Survey Data Analysis with SAS Base, SAS Stat (Proc ANOVA), SAS Macros, SAS ETS (Proc AUTOREG, Proc ARIMA), SAS IML, S+ and Smalltalk for Data Mining and to Build Econometric and Time Series Statistical Regression Models for Forecasting Company Market Share and for Developing Adhoc Reports. Usage of EMS Software to Build Econometric Demand Forecasting Models and for Price Elasticity Estimation. Presented Quarterly Forecasts to Product Management. Developed Pricing and Competitive Intelligence Analyses for Tariff Filings and Strategic Planning. Education Master of Science in Agricultural Economics and Marketing Rutgers University Graduate School Bachelor of Arts in Economics Rutgers University - Douglass College Skills PIVOT TABLES, SAS, UNIX, COGNOS, MS PROJECT, MICROSTRATEGY, OLAP, SPOTFIRE, TABLEAU, TERADATA, DB2, SQL SERVER, MYSQL, ORACLE, PL/SQL, SQL, STORED PROCEDURES, UDB, VSAM, CMS

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