****[**Mastan Vali Shaik**](https://www.linkedin.com/in/mastanvalisk/)

SAS Consultant | SAS Developer | SAS Programmer

**Email**: mastan.techcrunch@gmail.com

(682)-392-2939

Plano, TX.

**Summary:**

More than 11 years of experience in Data Analytics, Analytical Reporting, Statistical Modeling and Credit Risk Management in Banking, Pharmaceutical and Clinical domains. Subject Matter Expert (SME) in Programming, Development and Reporting using SAS, MS SQL, Power BI, Tableau and Advance Excel

* Analyze, Design and Develop SAS programs by accessing various databases such as Oracle, SQL Server,DB2 and Teradata
* Perform Extraction, Transformation and Loading (ETL) operation using SAS/Base(V 9.1/9.2/9.4), SAS EG, SAS DI Studio and data cleansing, formatting and manipulation using various SAS procedures.
* Develop SAS Macro programs to automate different models and reports to improve process efficiency.
* Work on model documentation including portfolio details, methodology and model development
* Subject matter expert (SME) in programming, development and reporting using SAS OLAP Cube Studio, SAS Imap Studio, Information Delivery portal, SAS WRS, SAS SQL, Tableau and Excel
* Experience in Basel II & Basel III capital requirements, Advanced Internal Ratings Based and IFRS9 Methodologies to calculate ECL & RWA with PD, EAD, LGD models
* Good experience in SAS clinical research and analysis, development, testing, and implementation of clinical trial projects in pharmaceutical industry and data analysis.
* Extensively used SAS for data analysis, generating reports, tables, listings, graphs in clinical trials and worked closely with clinical data managers on clinical operations
* Good at creating, reviewing, retrieving, validating datasets and to read, write, import and export to another data file formats.
* Expertise in Clinical Data Analysis, Generating CDISC standards such as Study Data Tabulation Model (SDTM) and Analysis Dataset model (ADaM) datasets, Tables, Listings, Graphs (TLG's), and Validations.
* Experience in Develop programs, prepare inputs to Case Report Forms (CRF), reviewing/analyzing Case Report Form (CRF), Study Protocol, Statistical Analysis Plan (SAP), and tables, figures, and listings (TFLs) shells.
* Expertise in analyzing and reporting various phases (Phase I-IV) of Clinical Trials using tools like SAS/BASE, SAS/STAT, SAS/GRAPH, SAS/SQL, SAS/MACRO, SAS/ACCESS and SAS/ODS on Windows & UNIX environments.
* Develop project plans, driving technical discussions, business analysis meetings, status reporting and conducting code reviews.
* Familiar with Agile, Involved in end to end implementation, production support, peer review, performance tuning, optimization of new and existing SAS programs
* Coordinate with stakeholders and recommend feasible solutions that improve model accuracy, performance and reduce portfolio provisions

**Technical Skills:**

|  |  |
| --- | --- |
| * Software/Products | * SAS/Base, SAS/Macro, SAS/Stat, SAS/Connect, SAS/ODS, SAS/ACCESS, SAS/SQL, SAS/ETL, SAS /Graph, SAS/OLAP Server, SAS EBI, SAS add-in MO, Python |
| * Databases | * Oracle, SQL Server, Teradata, DB2 |
| * BI Tools | * SAS Enterprise Guide, SAS Data Integration Studio, SAS Management Console, SAS OLAP Cube Studio, SAS Information Map Studio, SAS Information Delivery Portal, SAS Web Report Studio, Tableau, AlterYX, Power BI |
| * Languages | * SQL |
| * Operating systems | * UNIX, Windows XP/2000/2003/2010 |
| * Packages | * MS-Office, Visio, Numpy, Pandas |
| * Tools | * Bit bucket, Confluence, Github, File Zilla, Putty, WinScp, LSF, Control-M |
| * Modeling Techniques | * Linear Regression, Logistic Regression, Decision Trees, ARIMA |

**Employment History:**

|  |  |  |
| --- | --- | --- |
| **Organization** | **Period** | **Designation** |
| ANZ | Mar 2016 – Feb 2023 | SAS Consultant |
| Magna Infotech Pvt Ltd | Jan 2015 – Mar 2016 | SAS Developer |
| IMAP Technologies | Oct 2011 – Dec 2014 | SAS Programmer |

**Projects Summary:**

**ANZ Mar 2016– Feb 2023**

**ANZ Group Risk Decisions Models – SAS Consultant Feb 2022 – Feb 2023**

**Project Description:** The Scope of the project is develop Application Scorecard Models for the Credit cards, Personal loans and Mortgages portfolios using SAS & Python. Intention of the models is to approve credit facilities to credit worthy customers for the existing and prosperous customers.

**Responsibilities / Deliverables:**

* Develop Technical solution documents and Functional specifications document using BRD
* Work on SAS EG, DI Studio and SAS SQL to extract customer application, transactions and bureau data from Oracle and Teradata database systems
* Performed data cleansing, quality checks, manipulation and statistical analysis using SAS procedures such as proc sort, proc freq, proc means, proc summary, proc univariate, proc format, proc transpose, proc print, proc graph and SAS data step statements like Array, Merge & SET
* Create new variables, segmentation, sampling, converting continuous variable to categorical by creating bins, customized bins, cluster and correlation analysis using SAS procedures like proc format, proc freq, proc surveyselect , proc varclus and proc corr
* Python used to extract raw data & analysis of Numerical and character data
* Performed data validation, results analysis to ensure model accuracy to implement in production
* Design and develop Power BI visualizations which includes preparing dashboards using calculations, parameters, calculated fields, groups, sets and hierarchies and monthly, quarterly & Annual analytical reports and results presented to business users
* Deployment of SAS codes & DI jobs, package creation using SAS DI Studio and create master, sub flows and chaining of jobs using SAS Management console and scheduling of jobs using LSF & Control-M schedulers
* Provide technical, application support to SAS infrastructure & Unix teams during SAS 9.4 migration

**ANZ AU Credit Card Acquisition – SAS Consultant May 2021 – Jan 2022**

**Project Description:** Objective of the project is to develop credit risk rule that can be used to determine the applicant falls under good, average or bad credit risk category by analyzing number of numerical and character variables. Customer insights team analyzes customer data and analyzed datasets are used for credit cards campaign. Validation Model for Credit Cards also developed.

**Responsibilities / Deliverables:**

* Design and develop the SAS program/Macro for collecting the list and triggering the respective Email & SMS campaigns.
* Interacted with business users and stakeholders during weekly scheduled meetings.
* Analyze the campaign effectiveness and their open rates.
* Extract data from Oracle database using SQL Pass-Through facility in SAS environment and create SAS files.
* Create dynamic Macros to automate process to avoid manual interventions and errors.
* Exploratory data analysis with SAS procedures like Proc Append, Proc Sort, Proc Means, Proc Freq, Proc Summary, Proc Format, Proc Export, Proc Import, Proc Print, Proc Logistic, Proc Reg, Proc Transpose.
* Data analysis and validation using Proc Univariate, Proc Summary, Proc Freq, Proc Corr, Proc Rank, Proc Transpose etc.
* Expert in Tableau and Power BI for data visualization through various charts such as bar charts, line charts, scatter plots, pie charts, packed bubbles and custom charts, dashboards and visual interactive reports.

**ANZ NZ Retail Rating Model – SAS Programmer/ SAS Consultant Jan 2019 – Apr 2021**

**Project Description:** The Scope of the project is development of New Zealand ratings models for credit cards, Personal loans, Mortgages and Small Medium Enterprise. These models used to estimate exposure which in turn provision estimates at account and portfolio wise.

**Responsibilities / Deliverables:**

* Building Basel II PD model using logistic regression. It includes preparing term of reference (TOR)document, extracting data from internal databases, performing data quality checks (DQC),data scrubbing & reconciliation, creating new variables, segmentation and sampling, converting continues variables to categorical by creating bins (fine classing), customize bins (Coarse classing),variable reduction using information value (IV), stepwise selection methods, cluster and correlation analysis, segmentation, sampling, developing & finalizing the model and model validation.
* Carrying out customer credit history data extraction from databases and other sources using SAS PROC IMPORT, SQL PASS THROUGH FACILITY and LIBNAME.
* Summarizing raw dataset and performing data parsing using SAS procedures such as PROC SQL, PROCSUMMARY, PROC TRANSPOSE, PROC MEAN, PROC CONTENTS, PROC FREQ, PROC SORT and SAS data steps like ARRAY, MERGE, SET etc.
* Using logical statements such as IF/ELSE, WHERE and other SAS/SQL statements to create new variables, segmentation and out of time sample.
* Creating in-time validation sample using PROC SURVEYSELECT
* Creating fine classing and coarse classing using PROC FORMAT, PROC FREQ etc. and calculating weight of evidence (WOE) and information value (IV) for each model variables
* Using PROC CORR and VIF to check correlation between the variables
* Creating variables clusters using PROC VARCLUS & Developing PD model using PROC LOGISTIC in SAS
* Calculating PSI & CSI for model stability, KS & GINI for model discrimination power and Chi-Square for model accuracy
* Validating new models in-time and out of time validation samples
* Presenting model output to project manager and senior management and get their approval
* Working on model documentation for senior managers and regulators which includes details of portfolio, methodology and model development process
* Plotting frequency distributions of predicted probability of loan default histogram by PROC GPLOT and GHART.
* Change Requests raised during Model monitoring and solutions guided to Change Management team to fix issues
* Estimating Regulatory capital, RWA and EL using probability of default calculated using logistic regression and given EAD and LGD.
* Summarizing the results using PROC REPORT, PROC FORMAT, PROCTABULATE and SAS ODS and presented reports to stakeholders
* Experienced in data import from multiple data sources into Power BI Tool, created relationships between data, created calculated columns and measures using DAX Query.
* Experienced in creating customized and interactive dashboards using multiple data sources with Power BI

**ANZ IFRS9 Models – SAS Programmer Jul 2017 – Dec 2018**

**Project Description:** The Scope of project is Implementation of IFRS9 model monitoring solution in Risk systems environment.IFRS9 methodology used to estimate expected credit losses.

**Responsibilities / Deliverables:**

* Work includes designing reporting framework, dealing with different stakeholders for data extraction & Involved in model implementation, solution on Ad-hoc queries
* Analyze business user needs and software requirements to determine the feasibility of complex datasets, tables design within time and cost constraints
* Expertise in accessing data from various databases such as Oracle, Teradata and DB2
* Develop ETL codes using SAS DI Studio to create SAS datasets, views and load data into oracle tables
* Develop dynamic macro programs, arrays by SQL and with SAS data step programs in user written transformation to improve process efficiency and avoid code redundancy
* Data wrangling and data analysis using Python, Numpy, Pandas & Matplotlib libraries
* Involved in integrating the Analytical capabilities such as statistics, predictive analytics, data and forecasting and optimization
* Developed probability of NPL(Non performing loans), Exposure at NPL and loss given NPL are predicted metrics used to compute final provision numbers
* Proficient in creating calculation fields, parameters and action filters, Context filters, Cascading filters, for preparing dashboards and worksheets efficiently in Tableau

**ANZ AU Retail Rating Models– SAS Programmer Apr 2016 – Jun 2017**

**Project Description:** The Scope of the project is development of Australia Ratings models for credit cards, Personal loans, Mortgages & Business banking. These models used to estimate exposure on loss & provisions for that portfolio.

**Responsibilities / Deliverables:**

* Analyze the business requirements and prepare technical specifications document.
* Extract flat files, database tables from multiple sources such as Oracle, SQL Server & Teradata by SQL pass through facility and Import procedures
* Design, develop and create SAS ETL (Extract, Transform and Loading) jobs using SAS Data Integration Studio.
* Work in various SAS DI transformations like Table Loader, Loop, Sort, Lookup, Extract, Append, SQL join, Splitter, Teradata Table Loader, File Reader, File Writer and User Written Code.
* Exploratory data analysis by using SAS Procedures like Proc Append, Proc Sort, Proc Means, Proc Freq, Proc Summary, Proc Export and Proc Import.
* Design, develop quantitative models and related components such as probability of default (PD), loss given default (LGD) and exposure at default (EAD) used for the calculation of exposure and loss (ECL) at customer and portfolio level
* Work on statistical techniques such as roll-rate analysis used to define bad customers and vintage analysis used to determine optimal performance window
* Deployment of jobs and setting the dependencies for the jobs and tables by doing impact and reverse impact analysis.
* Migrate SAS codes and libraries between versions and between DEV, UAT and Production.
* Import all reports using Stored Process, dashboard and Information Map to Information Delivery Portal.
* Developed UAT, SIT codes as per business rules and validated the data to ensure output results as expected and documented results insights.
* Perform data visualizations, analysis, create stored processes & results using SAS Enterprise Guide and create complex web reports from SAS datasets, information maps using SAS Web Report Studio

**GMV Data Analytics – SAS Developer Sep 2015 – Mar 2016**

**Project Description:** The Scope of the project is re-development of existing Application Scorecard Models and capital models for the Credit cards, Personal loans and Mortgage portfolios using SAS EG, SAS DI Studio, OLAP Cube Studio and WRS.

**Responsibilities / Deliverables:**

* Responsible for design and requirements gathering
* Prepare SAS datasets from flat files & Oracle database and manipulation of existing oracle tables using SQL pass through facility
* Design Documents (Technical/Functional) & User Training Documents
* Performed extraction, transformation & loading using DI Studio
* Developed complex SAS macros to simplify the SAS codes and effectively reduce coding & execution time
* Data extraction, Data cleaning, formatting and manipulation using various SAS procedures and data step programming.
* Design and create SAS data marts and dimensional cubes.
* Perform data validation, data cleansing using different procedures such as Proc Means, Proc Freq, Proc Sort etc.
* Perform SIT, UAT on SAS programs and Data
* Developed highly customized reports include listing, HTML, RTF, PDF using SAS ODS, Proc Report, Proc tabulate and Proc SQL
* Create reports in SAS and exported to Excel spreadsheets, created web reports using Web Report Studio.

**NZ Model Monitoring – SAS Developer Jan 2015 – Aug 2015**

**Project Description:** The Scope of project is to prepare and process the customer Application data, Transaction data and bureau data in the form of data marts which is used in NZ model monitoring of all types of loan segments.

**Responsibilities / Deliverables:**

* Responsible for requirement gatheringt, provide effort estimation and stakeholder collaboration
* Handling huge volumes of datasets with billions of records
* Perform data extraction, data cleaning, validation, formatting and manipulation using various SAS procedures such as Proc Import, Proc Export, Proc Sort, Proc Freq, Proc Univariate, Proc Means, Proc Summary and data step programming
* Design, develop and maintain SAS data marts using SAS DI Studio, create stored processes using SAS EG and information maps using Imap studio
* Create reports in SAS and exported to Excel spreadsheets, created web reports using Web Report Studio.
* Create analytical reports using Proc Report, Proc Summary, Proc Tabulate, ODS statements and generating output in HTML, Excel, RTF and PDF formats
* Build the OLAP Cubes by defining metadata, dimensions, levels, hierarchies and measures using SAS OLAP Cube Studio.
* Extensively used FTP/SFTP to move data between different servers.
* Perform data analysis, assessment and resolution for complex defects and incidents.

**Laurus Labs – SAS Programmer Sep 2013 – Dec 2014**

**Project Description:** Worked on clinical trial safety and efficacy data which is a Phase I and Phase III Double blind double dummy DSMB study. Followed CDISC SDTM standards and prepared ADaM datasets and generated various Summaries, tables, listings and graphs as required. Clinical trial covers cancer & cardiovascular drugs.

**Responsibilities / Deliverables:**

* Involved in managing phase I,II and III clinical trial data & Performed data extraction from various repositories and pre-process data when applicable
* Created, derived, and pooled datasets, listings, and summary tables
* Verified the accuracy and integrity of data by performing validation checks written in SAS and investigate data related errors, outliers, and missing values
* Developed and executed edit check programs according to specifications provided by data management operations for purposes of database verification
* Used SAS SQL Pass through facility and Libname facility to import and create datasets from database
* Developed and executed Proc SQL queries for merging, concatenating, and updating large volumes of data
* Used Base SAS v9.1(MEANS, FREQ, SUMMARY, TABULATE, REPORT etc.) and SAS/STAT procedures (REG, GLM, ANOVA, UNIVARIATE etc) for summarization, Cross-Tabulations, and statistical analysis purposes
* Created complex and reusable Macros for various instances for automating listings and graphing of data for analysis
* Created Adhoc reports using the SAS procedures and created reports using SAS/ODS and Proc Template to generate different output formats like pdf and excel
* Created SDTM,ADaM datasets according to CDISC standards using Base SAS and validated using validation tools
* Collaborated with Data Management to annotate raw data with standardized variables and formats using Proc Datasets, Proc Formats
* Oversaw the daily tasks associated with clinical programming and subsequent analysis to ensure sponsor deliverables are created per agreed timelines and to high quality standards.

**Natco Pharma – SAS Programmer Oct 2011 – Aug 2013**

**Project Description:** This project is to develop tables, Patient listings, create and validation of derived SDTM Datasets, ADaM Datasets, Graphs (Safety) for Regulatory submissions. The Stat procedures were applied as per the protocols provided by the study Biostatistician. Reports were generated based on Table shells specification.

**Responsibilities / Deliverables:**

* Extensively used SAS/base(V9.1), SAS/SQL, SAS/Macro SAS EG for data analysis, ETL’s, generating reports, tables, listings, graphs in clinical trials and worked closely with clinical data managers on clinical operations
* Developed analysis datasets based on the guidelines provided in the SAP (Statistical Analysis Plan).
* Experienced in generating SDTM and ADAM domains in accordance with CDISC standards
* Generated reports on AE (Adverse Events) and SAE (Serious Adverse Events) Demographics, Laboratory shift tables by referring to the Statistical Analysis Plan (SAP) and the Mockup Shells.
* Extracted data from the database by SQL PASS THROUGH FACILITY and LIBNAME facility.
* Created regular reports in RTF, PDF, Excel and HTML formats using ODS statements & Tables, Listings, Graphs (TLG's) and Validations.
* Created Summary tables using procedures like PROC TRANSPOSE, SORT, FREQ, MEANS, SUMMARY, UNIVARIATE, AND TABULATE.
* Set up and design databases in Clinical Database Management Systems (CDMS) for clinical trial protocols & Generate Data Quality Plans and Data Validation Plans
* Design and produce Case Report Forms to meet the needs of each protocol.

**Education:**

**Master’s in Advanced Manufacturing Systems** in 2011, M.Tech from Jawaharlal Nehru Technological University securing 82% with First Class Distinction, Kakinada, India.

**Bachelor’s in Mechanical Engineering** in 2006, B.Tech from Acharya Nagarjuna University securing 64% with First Class , Guntur, India.