

## SUMMARY

Analytics Analyst with experience consulting within multiple industries. Produces start-to-finish quantitative analysis, beginning in SAS, Excel/VBA and completing with the presentation of key insights and comprehensive strategies that are used for making business decisions and strategies. Specializes playing with huge volumes of data.

## SKILLS

**Operating Systems** : Windows 98, XP, Red Hat Linux 9.

**Languages** : C, C++, VBA, Matlab, SAS (UNIX), Python (Beginner).

**Database Packages** : My SQL, SQL Server, MS Access, Oracle-Hyperion-Brio BI, Web Focus (Beginner).

**Tools /Packages** : Advanced Excel (2003, 2007) with VBA, Bloomberg., MS project manager, Rational Rose- UML.

## PROFESSIONAL EXPERIENCE

### **Analytic Innovations LLC, Chicago, IL**

Oct 2007- Present

Analyst (Quantitative Analytics)

#### **Fraud Risk Management and Analytics for a major debit card processor and its clients.**

-Currently working on a Debit card fraud analysis (detection and management) which aims at helping minimize fraud and improving operational efficiency and maximizing revenues through detection rule and scoring model validation. Analysis also involves using CHAID, decision trees and clustering techniques to identify variables that could be used for fraud prevention.

#### **Business Intelligence tool for Market share and Merchant activity forecasting for a major financial service company**

-Lead Analyst focused on maintaining and revising a Quant business and sales forecast model /BI which has helped improve market share, plan for both resource and financial allocations on an ongoing basis to meet the merchant acquisition and activation strategy goals and validate marketing campaign effectiveness. Forecasted merchant activity curves by cohorts, phases and segments through behavioral analysis, longitudinal analysis, coupled with current economic conditions and future expected behavior. Attrition and churn model was built to provide a forecast for attrition for different cohorts.

#### **Accomplishments**

-Consistently provided results within (3%-5%) variance.  
- Single handedly led the forecasting efforts, reporting and data processing, which shrunk the team from 7 to 3 members.  
-Automated work flow and improved processes.

#### **BI Modeling, Reporting and Segmentation for customer acquisition, activation, retention, risk management for a major bank.**

-Helped in reducing the risk in the credit card and debit card portfolios by identifying the segments with higher probability of default through charge off and delinquency analysis. This analysis was used to adjust the charge off forecast, and re model acquisition strategies for various programs like credit line increase. Behavioral scores were also taken into account.  
-Helped in improving usage of the business and professional debit cards by 15% by targeting an optimum population through multiple marketing campaigns. Data driven insight through card holder segmentation and characteristics were used to develop targeting strategies.

-Validated campaigns through back end analysis. (Response ROI Break even)

#### **Data mart and Business intelligence for a major credit union.**

-Created a data mart (B2B) containing credit union data, using python and SAS, and analyzed it to find out a target population that PSCU could target its services to. The mart is being used to gain market intelligence, validate survey results and industry data.

-Helped in preparing Business Proposals for AI's services to CD One price cleaners and ICS.

### **Verizon Business, Chicago, IL**

May 2007-Oct 2007

Business/Data Analyst, Carrier Cost Management

-Developed a cost savings process through research and analytics, which lead to savings of about \$ 700k.  
-Created a data repository (using MS Access) aggregating 10 yrs of cost metrics from various data sources, to form a central repository.

## **IIT Business Administration, Chicago,IL**

April 2006- May 2007

Student Analyst

-Assisted the VP of Business admin, to develop a financial model for the housing department, that predicted cash flows for thenext 10 yrs. Intelligence from the model was used to identify strategies to improve the future cash flow.

## **Software Technology Parks of India, Mumbai, India**

June 2004-Jan 2005

Intern, Networking and Security

-Developed a port forwarding, firewall system on the Linux platform using IP tables, analyzed the existing architecture of STPI to help make it more robust.

## **EDUCATION**

**IIT-Stuart School of Business, Chicago, IL**

Graduated Feb 08

Master of Science in Financial Engineering (Recipient, merit-based scholarship)

Core- Financial Modeling, Econometrics and Statistics, Valuation and Portfolio Management, Risk Management.

### **Academic Projects-**

-Mortgage Prepayment analysis – Analyzed how a prepayment model can be combined with an interest rate model to value the cash flows of MBS. Analyzed the data to understand the seasonality and length of membership characteristics, which could be combined with interest rate fluctuations to understand what populations prepay and can be targeted.

-Portfolio Optimization – Used variance covariance and correlation techniques along with excel solver optimization to find a portfolio of stocks that would match users variance tolerance. Replicated the technique subject to industry and sectoral constraints using linear and quadratic optimization techniques.

-Liability Immunization model – Immunized a liability to changes in interest rates using duration and convexity matching for parallel shifts in the yield curve.

-Created a binomial tree using black scholes pricing formula for option pricing.

**University of Mumbai, Thakur College of Engineering and Technology (TCET), Mumbai, India**

Bachelor of Engineering in Information Technology (Merit scholarship, 70% tuition waiver)

Core- Data Structures, Data warehousing and mining, Programming C, C++, OOP's, Networking and Security, Software Development.