Sheikh Pancham, PhD
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Professional Summary

Startup Python Developer. Two years experience developing Python Machine Learning software product templates for my startup panchamAI (https://www.panchamai.com)

Formerly 15years+ experience as a Senior Capital Market and Credit Risk Agile BA/PM: Implemented risk management and P&L reports that involved calculation of VaR, market and credit risk analytics across multiple asset types: equities, bonds, equity derivatives, Libor/OIS interest rate derivatives, FX and credit derivatives, Synthetic Collateralized Debt Obligations (SCDOs). Gathered and documented pricing and risk requirements and managed complex technology projects using Agile SDLC practices at top-tier investment banks/hedge-funds. Previous Murex and Bloomberg experience.

Job Experience

Startup Founder at panchamAI (https://www.panchamai.com)   Jan 2019 – Nov 2020

- Planned and developed Python Machine Learning Trading software product templates for sale using Scikit Learn library for:
    - Support Vector Machine product template for trading eMini S&P 500 Futures.
    - Neural Network product template for trading eMini S&P 500 Futures.
    - XGBoost product template for trading eMini S&P 500 Futures.
- Built startup website (desktop and mobile) using Wordpress, Beaver Builder and Woo Commerce software. (https://www.panchamai.com)
- GitHub Project Folder
- Enrolled in Python and SQL courses with Data Camp, received course certification.
- Actively working through Leetcode and HackerRank Python algorithms to increase my Python skills.

Senior Market Risk Agile BA/PM at DTCC, **Jersey City**   Aug 2016 – Oct 2018

Responsibilities included:

- Collaborated with Quantitative Risk Management team and Business Desk to gather and document model and market risk reporting requirements. Broke down requirements into User Stories, created Epics and entered Backlog in JIRA.
- As Agile PM/Product Owner, led daily stand up scrum calls involving global IT resources. Responsible for Backlog Grooming, Sprint Planning, and ensuring that development and delivery adhered to Agile SDLC practices maintained by DTCC.
- Mocked up UI screens for risk reports in Visio. Conceptualized and designed user experience navigation workflow for reports.
- Liaised with Blackrock and Bloomberg vendor staffs to agree on and document SLA for market data feeds, such as, for Risk Factors and Sensitivities.
- Prototyped Excel VBA Market VaR spreadsheet models to validate Sensitivity Market VaR for Mortgage-Backed Securities, Government Securities and Equities portfolios. The VaR model is used for the daily margining to manage settlement risk of MBS and GS clearing portfolios.
    - Working closely day-to-day with Quantitative Risk Management and Product Risk groups.
    - Worked closely with IT developers to implement project deliverables and test all new features of Sensitivity Market VaR system.
    - Assist QA to design test scripts, troubleshoot and analyze issues.
- Scripting of SQL stored procedures to access risk sensitivities and factors data tables for troubleshooting and prototyping.
- Prototyped Excel VBA spreadsheet examples to explain Stress Testing and BackTesting of Sensitivity Market VaR model to technology team.
    - Performed Principal Component Analysis to obtain uncorrelated risk factors which were then applied to select stress scenario dates.
- Model Validation:
    - Identified sources of model risk and comprehensively reviewed all model components and evidence.
    - Presented results through formal validation reports, and presentations to model owners and senior management.

- – For MBS and GS: Evaluated Sensitivity Market VaR model performance using backtesting and Stress Testing metrics (Deficiency, Cover1), to validate if daily margin model adequately covered settlement risk.
  - – For Equities: Investigated distributional assumptions of parametric VaR model and determined that VaR model closely followed Student t rather Normal distribution. Calibrated model fat-tail adjustment factor for Student t distribution.
- Coached global IT resources (a staff of 24) and developed training materials on all aspects of Agile SDLC methodology.

Agile BA/PM Market and Credit Risk Consultant at **Credit Suisse, New York**   Jan 2013 – July 2016
Responsibilities included:
BA/PM for Valuation Model Pipeline:
- BA/PM for VM Pipeline, a project to enable ongoing addition of new products, risk types, and model changes to Credit Suisse trade, P&L and risk applications to meet requests from Quant Strats, QRM, Product Control, and Front Office.
- Management of all Agile project team activities: Document User Stories, Story Point Estimation, Backlog Grooming, Sprint Planning and Retrospectives, Risks and Issues Tracking, running the daily scrums and providing regular updates on project status and metrics to senior management. BA/PM tools: JIRA, MS Project.
- Scripting of SQL stored procedures to access interest rate and credit curves data tables for troubleshooting and prototyping.
- Built and maintained Excel VBA spreadsheet models (TradeAnalyzer) for IT to be able validate product pricing and risk calculations when integrating Quant Strats libraries into the trading/risk system.
  - – Implementing pricing and risk analytics for interest rate products: Libor/OIS Interest Rate Swaps, Libor Swaptions, Libor Caps, Floors, Bootstrapping under Libor and multicurve Libor/OIS framework, building swaption Volatility Surface/Cube.
  - – Credit and Equity Products included: Credit Default Swaps, Index CDS, CDSwaptions, FX Swaps, Equity Derivatives, Total Return Swaps, Equity Swaps, Knock-in and Knock-out Options, Barrier Options, Cliquets, Asian Options, Portfolio Swaps, Index Swaps, CFDs.
  - – Risk calculations included: Greeks for CDS/Rates/FX – Duration, Convexity, Delta, Gamma, Theta, PV01, PV Coupon 01, Vega, Methodologies and analytics applied: Binomial tree building, Hull-White, Black-Scholes, CRR, Stochastic Volatility models (SABR), GBM, Finite Difference, Cubic Spline Interpolation, Ito Stochastic Calculus.
- Partnered closely with Middle Office to design and develop PnL Explain Report, Risk Management Reports, and troubleshoot EOD PnL discrepancies.
- Entailed coordination of four application development teams in the Credit space: Aspect (PnL, reports and associated feeds for trade PnL), Titan (risk metrics, valuation, and trade data feeds), MOB (provides market data; determining the set of market & static data needed to define the market environments used by Aspect and Titan), and GRV/DR Risk Viewers (risk viewing applications).

BA/PM for BAU / Credit IT Risk System:
- BA/PM for BAU Credit IT Risk System. Liaising closely with client stakeholders from Credit FO Trading, Strategic Risk Management, and Product Control groups, to manage the Credit IT backlog, and working with them to prioritize and deliver on their requirements.
  Release management and Backlog monitoring via JIRA lifecycle workflow. Chasing stakeholders to ensure all UAT pre-deployment approvals and QA Readiness Reports are obtained.

BA/PM for CSSU Legal Entity Project:
- BA/PM for CSSU LE Project. This is a UK Regulatory requirement. Establish Credit trade booking infrastructure for new US legal entity CSSU (Credit Suisse Securities, USA), for all OTC derivatives trades (booked in DTD) with US counterparties, to be done on the CSSU.

BA/PM for Credit Risk IT Department Projects
- – Development of the project plans, work breakdown structure, establish milestones and dependencies – in MS Project.
- – Worked closely with the Dev Leads to detail work packages/tasks and establish effort estimates.

- Driving the deliverables, reporting on and documenting project status weekly and monthly, and regularly delivering PowerPoint presentations to executive management.
- Allocating and rebalancing resources from a global dev team (12 people from NY, London, Poland, Pune, Singapore.) Assigned user stories and tasks which are tracked in JIRA. Participate in daily scrum calls.
- Development and maintenance of all project artifacts (such as the project charter and plan, BRD, status reports, communications plan, risk and issues log, resourcing plan, JIRA user stories, sprint schedules, and close out and lessons learned report).
- Coordinating schedules and dependencies with project leads from the other program work streams.

Audit Points Compliance
- Implemented approvals workflow and monitoring process to ensure releases and system environments comply with Dodd-Frank, Sarbanes-Oxley (U.S.), FINMA (Swiss), and MAS (Singapore) audit requirements.
- Point person assigned to work with internal audit committees to assure compliance of Credit IT risk management processes and systems with regulatory requirements.

Toolset: Excel VBA, MS Project, Visio, PowerPoint, Word, JIRA, OnePPM (Resource and Budgeting), Sharepoint, Confluence.

ICAP Inter-Broker Dealer, New Jersey   Sept 2012 – Dec 2012
Dodd Frank Compliance Implementation – Consultant Senior Business Analyst
Responsibilities include:
- Analyzed and documented high level and functional specifications required for OTC derivatives to comply with Dodd Frank trade reporting on SEFs (Swap Exchange Facility), and to SDRs (Swaps Data Repository), and mandatory clearing on CCPs (ICE, CME, etc.).
- Provided functionality to give brokers and traders on the ICAP platforms the ability to select from OTC instruments with different CCPs, select from multiple FCMs, and select from multiple Clearing Accounts at the chosen FCM, upon order entry, for trading on SEFs.

Credit Suisse, New York   Nov 2009 – Aug 2012
CRM Solutions - Consultant BA/PM, Lead Business Analyst
Responsibilities include:
- Requirements gathering for Fixed Income Sales CRM Project - a consolidated app that offers Sales decision-making information related to Client Relationship Management, such as, Client Trading History, Revenue, Holdings, Credit Limits, Call/Meeting Notes, and Research Tools Usage.
- Designed UI mockups in MS Visio, storyboarded Use Cases, developed BRDs, User Stories and Project Plans, managed backlog and planned Sprint schedule, led project meetings, made presentations to executive management, participated in QA testing, trained users on CRM functionality, and managed rollouts.
- Tools used: MS Project, Visio, PowerPoint, SharePoint, JIRA, Quality Center.

SAC Capital Advisors, Connecticut   Aug 2006 – May 2009
Vice President, Senior Murex Market Risk BA/PM
Murex Implementation - Lead Murex Market Risk Analyst for Fixed Income/CDS trading technology migration.
Responsibilities include:
- Ensured projects were appropriately resourced and successfully executed within approved timelines, stakeholder consensus, and scope. Developed and reported on project plans/status and future roadmaps, led project meetings, made presentations to executive management, managed multiple work streams.
- Worked across Front Office, Middle Office, and IT space, liaising with portfolio managers/traders, risk management group, senior management, application programmers, controllers, end-of-day PNL group, and the Murex vendor support staff.
- Analyzed and documented Securities Trade Life Cycle workflow process from Front Office trade capture & execution, Middle Office matching, confirmation & trade management, and Back Office downstream feeds to Advent-Geneva General Ledger.

- Documented data feed mappings for importing Reference Data (issuers, counterparties, brokers, dealers), Market Data (swap curves, credit spreads, currency pairs, volatility surfaces) from Reuters, Bloomberg, Markit Partners, and other data providers.
- In depth hands-on configuration of Murex asset type generators and curve data templates.
- Trade migration and product onboarding into Murex for Credit Derivatives, Interest Rate Swaps, FX Spots/Forwards, Swaptions, Bonds (Vanilla/Callable), Repos, Exchange-traded Eurodollar Futures Options, Equity Derivatives, Total Return Swaps.
- Performed reconciliation analysis for Pricing, PNL, and Risk Sensitivities (the Greeks, DV01, Duration, Convexity) benchmarking Murex results to Bloomberg and FINCAD.
- Created PNL Explain and Counterparty Credit Risk reports. Trained traders on Murex trade/portfolio front-end functionality, Middle Office staff on EOD PNL and Risk reporting functionality, and IT on product and market data configuration.
- Tools used: Murex, Bloomberg, FINCAD, Excel, MS Project, Visio, PowerPoint, JIRA, Quality Center.

JP Morgan Chase, New York   Jan 2006 – July 2006

Senior Business Analyst –VP North America Credit Markets
Murex 3.1 Straight-Through-Processing Implementation Project. Responsibilities include:
Same as at SAC above. However, though I was a key team member, I was not the project lead. The experience I acquired at JPM led to my recruitment by SAC.

Bloomberg LP, New York   Oct 2000 – Jan 2006

Business Manager for Credit Derivatives and Interest Rate Swaps Applications.
- Developed specifications for Bloomberg's world-renowned Credit Default Swap calculator, CDSW, and Interest Rate Swaps calculator, SWPM.
- Researched and documented product requirements for Credit Default Swaps, Credit Indices and Tranches, Loan CDS, Nth to Default Baskets, Synthetic Collateralized Debt Obligations (SCDOs), and Options on CDS.
- Researched and documented product requirements for a wide range of Interest Rate Swaps, including, FX swaps, Caps, Floors, Collars, Callable Range Accrual Options, Swaptions, Cancellable Swaps, Synthetic Collateralized Debt Obligations (SCDOs), and Swaption Volatility Cube.
- Worked alongside the Quants and assisted in building Excel VBA prototypes for these products and vol inputs.
- Maintained a strong understanding of the markets we operated in to generate ideas for new products and enhancements. This involved meeting with customers regularly, reading articles from the industry journals and research papers written by members of the firm's quant group, tracking down and comparing competitive products, and analyzing product feedback from the sales force obtained from their client visits.
- Organized, planned, and delivered projects from conception through implementation. This involved writing up and submitting project proposals, designing broad product specifications and UI mockups, establishing deliverables, resolving unanticipated issues, working closely with programmers to ensure deadlines were met, and verifying that adequate quality assurance testing was performed and help pages were published accurately.
- Executed release of products to clients and managed sales campaigns globally. This involved coordinating with the marketing group to ensure that sales promotion sheets, campaign materials, and news wires were developed and broadcasted in a timely manner, giving presentations and training internally to the sales force and customer support desk, identifying the correct market of new prospects and current users to target, and establishing and monitoring campaign performance metrics.

FAME Information Services Inc., New York   Mar – Sept 2000

Director, Quantitative Solutions
Responsible for spearheading global business development of FAME's new Quantitative Solutions area.

Fuji Bank Ltd, New York   Dec 1997 – Jan 2000

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Credit Risk Research, Asst. Vice President

- Expertise in CreditMetrics methodology and application software CreditManager. The first person in Fuji Bank to calculate an analytically sophisticated credit risk (VAR) report and present it to senior management for use as a business tool. Specifically:
    - Evaluated leading credit risk tools/methodologies of the day and developed/presented business proposal to senior management leading to the recommendation and purchase of CreditMetrics.
    - Documented Policy and Procedures Manual in accordance with Federal Reserve Bank Compliance Requirements and liaised with FRB and BOJ bank examiners on credit risk issues.
- Performed two different types of CreditManager analysis on $20 Billion Commercial Loan Portfolio: Calculated portfolio Expected Loss, and Credit Value-At-Risk (VAR), both in aggregate and drill down categories such as Industry, Maturity, and Credit Rating.
- Produced simulation report that estimates the entire Value Distribution of the bank's credit portfolio.
- Analyzed credit VAR across multiple vertices to identify Concentration Risk and to review the Marginal Contribution of exposures to the total portfolio risk.
- Executed Stress Testing of loan obligors' default rates to examine the impact of extreme economic downturn on portfolio.
- Demonstrated to senior management and Regional Loan Origination staff how credit risk report can be used as a business tool to:
    - Set consistent risk-based limits, rather than arbitrary limits based only on exposure amounts.
    - Allocate economic capital based on credit risk analytics rather than BIS regulations.
    - Make portfolio optimization decisions based on RAROC.
    - Developed portfolio analytics system for Mountain Capital Collateralized Loan Obligation. Research results demonstrate that optimization of $500 Million portfolio can enhance CLO's profitability by $756K.
    - Performed Cash Flow Analysis, Developed and Calculated Risk & Interest Coverage Ratios, Optimized weights of loan assets in CLO Portfolio.
    - Presented Monthly Credit Risk (VAR) Report to NY Branch Senior Risk Management Committee. Liaised quarterly with Tokyo Head Office Risk Assessment Group.
    - Supervised and delegated projects/tasks to 2 MBA-qualified credit risk assistants.

Education

Florida International University Ph.D. in Finance
Florida International University B.B.A. in Finance