

ROHAN KUMAR

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SENIOR RISK & COMPLIANCE ANALYTICS SPECIALIST | MODEL GOVERNANCE | DATA ENGINEER | AI GOVERNANCE

Senior Risk & Compliance Analytics professional with 8+ years of proven track record of leading model development, validation, governance, and regulatory initiatives across trade surveillance, credit risk, operational risk, IRRBB and stress testing. Recognized for translating complex analytics into compliant, auditable solutions aligned with SEC, FINRA, and global banking standards.

Core Competencies

Risk & Finance Expertise

- Consumer Credit Risk, Fraud Risk, Customer Valuation
- Liquidity Risk Management, Market Risk, Operational Risk
- Equity Research, SOX Controls
- Trade Compliance, CCAR Stress Testing, Macroeconomic research, PPNR, Financial Instruments, Quantitative / Qualitative Research

Model Development & Validation

- Predictive Modeling, Forecasting, Model Validation, SR 11-7/SR 15-8, SR 12-7, AI Governance
- Logistic Regression, Linear Regression, Lasso
- Decision Trees, Random Forest, Gradient Boosting
- ARIMA, Auto Regression, Time Series Forecasting

Advanced Analytics & Machine Learning

- KNN, Cluster Analysis, K-Means
- Deep Learning: CNN, RNN
- AI, Data Mining, Feature Engineering

Statistical Techniques

- Univariate & Bivariate Analysis
- Hypothesis Testing
- Model Performance & Backtesting.

Data & Pipeline Engineering

- ML Pipeline Development
- Model Deployment & Monitoring

Technical Skills

Languages & Analytics: Python, SAS, ETL, R, SQL, PostgreSQL, kdb+/q, NoSQL

Big Data / Cloud: Databricks, PySpark, Azure, GCP, AWS

ML & Libraries: TensorFlow, Keras, Scikit-Learn, Pandas, NumPy, SpaCy

Visualization & BI: Tableau, Power BI, Matplotlib, ggplot

Tools: JIRA, MS Project, Office, confluence

PROFESSIONAL EXPERIENCE

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Independent

Jan 2026 – Present

Independent Consulting, MS Computer Science Coursework & Professional Development

Pursuing MS in Computer Science at Monroe College with focus on database systems, data engineering, and cloud platforms. Providing independent analytics consulting for financial services clients; deepening expertise in ML model deployment, risk analytics, and AI governance frameworks while actively seeking full-time CPT-eligible roles in data engineering and risk analytics.

Madison-Davis, SMBC Compliance, Jersey City, NJ

Compliance Analytics Consultant

June 2025 – Dec 2025

Providing support to Client's compliance Analytics group using advanced analytics, model development, and automation of **Market Surveillance**, utilizing **Python, SQL, Azure Databricks** and statistical techniques to enhance detection accuracy, reduce false positives, and strengthen regulatory controls.

- Developed and enhanced in-house **Market Surveillance** models to identify potential market manipulation, and policy-breach behaviors across multiple asset classes (**Fixed Income, FX**), improving detection precision while reducing false positives by 20%.
- Performed data **reconciliation, pattern detection, and anomaly analysis** using structured and unstructured datasets to strengthen surveillance coverage and reduce false positives.
- Built analytical workflows using **Azure Databricks (Python/SQL)** to automate surveillance model inputs and alert reviews, cutting manual processing time by 20–30%.
- Performed day to day model's code versioning and enhancements using **GitHub** and documented model development, alerts logic for UAT/production run and reconciliation procedures in **confluence**.
- Partnered with **Compliance, Technology, and Surveillance SMEs** to ensure model logic aligns with **SEC, FINRA**, and internal SMBC policies.
- Supported governance teams by preparing methodology documentation, model change artifacts, and test evidence in alignment with model risk standards (**SR 11-7**).
- Performed security and compliance enforcement activities, including validating data integrity, escalation protocols, and evidence retention requirements.
- Assisted in **annual thresholds tuning/BTL exercises** for in-house Surveillance models to improve detection sensitivity, reduce false positives and enhance overall operational efficiency.
- Supported risk-based decision-making by ensuring **compliance with regulatory requirements**, internal policies, and ethical standards, proactively identifying and escalating control issues.

Career Break / Professional Development

2024 – 2025

Focused on continued professional development, including coursework toward MS in Computer Science (Monroe College) and independent study in ML deployment, cloud platforms, and AI governance frameworks.

DEUTSCHE BANK, New York NY

2022 – 2023

Assistant Vice President (Senior Risk Methodology Specialist)

Led and supported strategic analytics for corporate banking portfolios supported **CCAR stress testing, IRRBB** and used corporate banking portfolio data and **macroeconomic** / financial variable(s) to manage and build PPNR models. Carried out PPNR models projection using different scenarios for CCAR stress testing and maintained model documentation, mitigated model findings, and executed model monitoring, **KPI** and **KRI** as per Deutsche **Model Governance standards**.

- Enhanced financial models supporting **\$5B+** in revenue and balance sheet exposures using Excel, R, and **Python** for recalibration and enhancements, increasing accuracy and effectiveness.
- Revamped and calibrated PPNR models, implemented financial models, and conducted ad hoc analysis, leading to 15% reduction in forecasting errors.
- Managed Corporate Trust portfolio (**custodian** and **Non-Custodian** Business) models for CCAR and regulatory requirements.
- Contributed to CCAR stress testing 2023 and supported MRM validation activities for **corporate trust, Institutional Cash Management and Corporate Cash Management**.
- Monitored **CCAR / PPNR models** and ensured compliance with model risk management standards, assessing how well models maintain predictive power and reliability as new data becomes available.
- Collaborated with stakeholders to ensure compliance with bank standards and guidelines, leading to 30% faster workflow.

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- Supported **IRRBB** analytics by analyzing interest rate sensitivity, balance sheet repricing gaps, and scenario impacts under regulatory stress environments.
- Evaluated **model assumptions**, escalated methodology risks, and documented limitations in accordance with **SR 11-7 and internal governance policies**.
- Assisted in Projecting the impact of **Interest Rate Swaps** on the capital plan as part of the CCAR process.
- Monitored and shared knowledge to junior team member in India and the USA, leading to a **30%** faster workflow.

PRIMESOFT CONSULTING SERVICES, Jersey City, NJ

2020 – 2022

Credit Risk Modeler, Santander, Contract

Supported development and update of credit models including risk rating, scorecard and CCAR loss estimation models using **SAS**, Tableau. Collaborated with different team members associated with outside portfolios and helped clients prepare model development documentation for **CECL** and **IFRS9**.

- Developed **SAS** programs, implemented models, and assisted in project management and documentation, producing 10-15% reduction in processing time and enhanced efficiency.
- Extracted, transformed, and analyzed large, structured datasets using **SQL, SAS, and automation frameworks**, improving data accuracy and efficiency of risk reporting.
- Developed credit models including risk rating, scorecard and CCAR loss estimation models by leveraging strong understanding of **PD / EAD / LGD**, stress testing, and prepayment models.
- Led collaborative effort in conducting NDOD (IFRS 9) validation analysis for retail portfolio, employing diverse **SAS** procedures to obtain results for the validation process.
- Worked closely with internal Santander team to oversee model development and implementation, ensuring 98% compliance with established model development standards and guidelines.

HUXLEY / ALLEGIS GLOBAL SOLUTION, New York, NY

2018 – 2019

Risk Management Specialist, HSBC, Contract

Managed fraud risk model and related strategy. Collaborated with **fraud analytics** group stakeholders and performed independent model reviews for client. Oversaw model risk management group, vendors, and model management planning group. Redesigned model documentation for fraud risk models with machine learning algorithms. Ensured fraud analytics and related solutions (Fraud Risk Controls) were operated at optimum effectiveness.

- Executed fraud **model monitoring** at HSBC using **SAS enterprise Guide** analytic tools **SAS/SAS SQL**, ensuring 99% compliance with bank standards and conducted annual vendor model reviews, leading to 15% improvement in model efficacy.
- Collaborated with IT and model implementation groups for UAT and **BRD** for vendor model document completion, achieving 95% accuracy in documentation completeness and compliance.
- Worked with industry-standard **fraud platforms and technologies** such as **First Data**, SAS EFM, Power BI, Experian products, resulting in 20% reduction in time required for monitoring activities.

CRISIL / S&P GLOBAL, New York, NY

2015 – 2017

Quantitative Analyst

Supported CCAR stress testing of time series regression **model development** and documentation. Supported **validation** of **fraud vendor models / PPNR models** and worked with different client teams in integrating results for delivery to Capital Planning Working Group or Model Validation Group.

- Worked on **macroeconomic** models for CCAR submission 2016, validating models for large investment bank Citi.
- Developed **time series regression models**, created **SAS** datasets, and wrote technical documentation., reducing data processing time by 20% and improving efficiency in model implementation.
- Validated **fraud detection / PPNR RWA** models and developed model validation framework for clients Bofa and BnP, improving model governance by implementing standardized processes for validating and monitoring fraud detection, propensity models and PPNR RWA models.
- Gained Knowledge of financial products and contributed to team development of knowledge and problem solving through findings and insights from the acquired knowledge and research analysis.

KODUKULLA AND ASSOCIATES INC, Chicago, IL

2015

Research Analyst

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Researched and developed time estimation to complete projects in various industries using statistical techniques and @risk software. Performed Project Time Estimation analysis using Microsoft Project and Palisade @Risk software.

- Conducted **Monte Carlo Simulation** with Discounted Cash Flow (DCF) analysis to analyze project Net Present Value (NPV), strengthening decision-making processes by assessing range of possible project outcomes and NPVs.
- Developed client training material, improving project efficiency and risk methodology by 10%.

HCL, India

2012-2013

Lead Engineer/Business Analyst

The scope of the project was to support clients in USA from offshore for various kinds of development work which comprise of cost and risk analysis, New Product Introduction development support and sustainability analysis of existing products.

- Done Cost Estimation and Risk analysis for the new and existing components of the Manitowoc Crane products.
- Assisted in data management and process discipline for risk control through centralized risk governance framework.
- Interacted with the client (Manitowoc Crane) on regular basis to deliver the project before deadline.

Tata Motors Ltd, India

2009-2011

Assistant Manager/Development

The fundamental goal of this project was to support and development of existing and new product introduction. This covers company's product range analysis by using its product life cycle management database. This Project covers good amount of interaction with different groups like finance, manufacturing, IT Implementation, Service, Vendors and production.

- Delivered analysis to support product and pricing updates which meet economic objectives.
- Worked closely with the technology team to analyze the data environment, support the addition of new data sources, and implement decision models.
- Used SAS PROC SQL pass through facility to connect to tables and created SAS datasets using various SQL joins such as left join, right join, inner join and full join.
- Worked with large data sets using Pass Thru SQL technique.
- Interacted with vendor and handled a team for the timely and effective execution of the project.

Mahindra Satyam, India

2007-2008

Analyst

The scope of the project was to support clients in USA from offshore for various kind of development work which comprise of cost and risk analysis, New Product Introduction development support and sustainability analysis of existing product.

- Worked with well-balanced team and effectively communicated with the onsite team (Caterpillar) and delivered the Project for Mahindra Satyam before time.

EDUCATION

Master of Science (MS), Computer Science, Monroe College, New Rochelle, New York (In Progress)

Master of Business Administration (MBA), Financial Management, Goldey-Beacom College, Wilmington, DE

Master of Science (MS), Analytics, Harrisburg University of Science and Technology, Harrisburg, PA

Master of Science (MS), Finance, Risk Management, Corporate Finance, Illinois Tech., Stuart School of Business, Chicago, IL

Bachelor of Engineering in Mechanical (BEMECH), Manipal Institute of Technology, Manipal, India

LICENSES AND CERTIFICATION

Equity Essentials, Bloomberg Essentials Training Program, Chicago, IL

VOLUNTEERING

Market Research Analyst in Health sector, ALM Medical, Chicago, IL

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Work Authorization: F-1 with active CPT — eligible to begin work immediately, no sponsorship required. H-1B cap-exempt (~4 years remaining); seamless H-1B COS available upon employer petition.