ROHAN KUMAR

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PROFESSIONAL SUMMARY:

Senior Risk and Treasury Analytics professional with 8+ years of experience across global banking institutions including Deutsche Bank, SMBC, HSBC, and Santander. Strong Python, SQL, and algorithmic problem-solving skills applied to CCAR and scenario-driven stress testing, PPNR and balance sheet line item modeling and projections, IRRBB sensitivity analysis, and liquidity analytics. Proven track record of converting Excel-based business logic into Python programs and tools, building REST APIs and BI dashboards that present scenario results and metrics to senior management, and partnering across Treasury, Risk, Finance, and Technology functions in alignment with SR 11-7 model governance standards.

EDUCATION:

Monroe University, King Graduate School, New Rochelle, NY
Master of Science in Computer Science*, expected August 2027*

Harrisburg University of Science and Technology, Harrisburg, PA
Master of Science in Analytics

Illinois Institute of Technology, Stuart School of Business, Chicago, IL
Master of Science, Finance – Risk Management & Corporate Finance

Goldey-Beacom College, Wilmington, DE
Master of Business Administration in Financial Management

CERTIFICATIONS & LICENSES:

- Equity Essentials, Bloomberg Essentials Training Program, Chicago, IL
- Databricks Certified Data Engineer Associate
- Other certification can refer to LinkedIn profile

EXPERIENCE:

Madison-Davis/SMBC Compliance, Jersey City, NJ (Jun 2025 -Dec 2025)
Compliance Analytics Consultant

- Developed and enhanced in-house algorithmic detection models in Python to identify market manipulation and policy-breach behaviors across Fixed Income and FX asset classes, improving detection precision while reducing false positives by 20%
- Converted Excel-based business logic and calculations into automated Python/SQL workflows on Azure Databricks to feed model inputs and alert reviews, cutting manual processing time by 20–30%
- Performed data reconciliation, pattern detection, and anomaly analysis using structured and unstructured datasets to strengthen surveillance coverage
- Conducted annual threshold tuning, sensitivity analysis, and back-testing (BTL) exercises for in-house models to improve detection accuracy and reduce false positives
- Collaborated with Compliance, Technology, and Surveillance SMEs to ensure model logic aligns with SEC, FINRA, and internal SMBC policies
- Prepared methodology documentation, model change artifacts, and test evidence in alignment with SR 11-7 model risk standards
- Performed code versioning and model enhancements using GitHub; document alert logic, UAT/production run procedures in Confluence

Independent Analytics Consultant & Research, Jersey City, NJ (Jan 2024 – Jun 2025)
Self-Directed | Analytics Research & Applied ML Development

- Designed a modular detection engine in Python (OOP) with strong algorithmic design — priority queues, sliding windows, and rule-based scenario logic — integrating real-time market data via Yahoo Finance and CoinGecko REST APIs; published ML-based anomaly detection research on SSRN (Abstract ID 6576018)
- Developed a Flask-based REST API in Python that ingests datasets and returns Pandas-computed analytics to downstream applications; built an end-to-end Power BI dashboard on Databricks SQL with DAX measures and KPI visuals presenting metrics and results to an executive audience
- Completed advanced coursework in Machine Learning, Data Engineering, and Algorithms as part of M.S. Computer Science program (Monroe University); applied regression modeling and Jupyter-based analysis to real-world datasets

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- Maintained subject matter expertise in financial risk and regulatory compliance through continued engagement with industry literature on BCBS 239, SR 11-7, CCAR/PPNR, and market surveillance frameworks

Deutsche Bank, New York, NY (Aug 2022 – Dec 2023)
Assistant Vice President – Senior Risk Methodology Specialist

- Led strategic analytics for corporate banking portfolios supporting CCAR scenario-driven stress testing and IRRBB, owning balance sheet line item models and projections covering $5B+ in revenue and balance sheet exposures
- Revamped and calibrated PPNR balance sheet projection models, converting Excel-based business calculations into Python analytics with scenario result visualizations for senior management, reducing forecasting errors by 15%
- Supported CCAR stress testing 2023 and MRM validation activities for Corporate Trust, Institutional Cash Management, and Corporate Cash Management portfolios
- Monitored CCAR/PPNR models and ensured compliance with model risk management standards per SR 11-7 and internal governance policies
- Delivered Interest Rate Risk (IRR) and treasury analytics — interest rate sensitivity analysis, yield curve scenario impacts, and balance sheet repricing gap analysis — under regulatory and liquidity stress environments
- Collaborated with Treasury, Risk, and Finance lines of business to gather requirements and translate business logic into modeling and reporting tools, resulting in a 30% faster workflow

Primesoft Consulting Services (Santander), Jersey City, NJ (Apr 2020 – Aug 2022)
Credit Risk Modeler (Contract)

- Developed credit models including risk rating, scorecard, and CCAR loss estimation models leveraging PD/EAD/LGD frameworks, scenario-based stress testing, sensitivity analysis, and prepayment models
- Led NDOD (IFRS 9) validation analysis for retail portfolio using SAS, achieving compliance with model development standards
- Improved data accuracy and efficiency of risk reporting by using SQL, and SAS methods of Extraction, transformation, and analyzing large, structured datasets
- Prepared model development documentation for CECL and IFRS9 compliance, ensuring 98% adherence to established standards

Huxley / Allegis Global Solution (HSBC), New York, NY (Jun 2018 – Nov 2019)
Risk Management Specialist (Contract)

- Managed fraud risk models and related strategies; performed independent model reviews and oversaw vendor model management
- Executed fraud model monitoring using SAS Enterprise Guide, ensuring 99% compliance with bank standards; conducted annual vendor model reviews leading to 15% improvement in model efficacy
- Collaborated with IT and model implementation groups for UAT and BRD documentation, achieving 95% accuracy in documentation completeness

CRISIL/S&P Global, New York, NY (Sep 2015 – Nov 2017)
Quantitative Analyst

- Supported CCAR scenario-driven stress testing, time series regression model development, and validation of PPNR and fraud vendor models
- Validated models for large investment banks (Citi, BofA, BNP), improving model governance by implementing standardized validation and monitoring processes
- Developed time series regression models and created SAS datasets, reducing data processing time by 20%

Kodukulla and Associates Inc. Chicago, IL, Jan 2015 – May 2015

Research AnalystMonte Carlo Simulation and DCF analysis Applied to assess project NPV distributions and risk ranges across multiple industries; developed client training materials on quantitative risk methodology, improving estimation accuracy by 10%.

EARLIER CAREER — ENGINEERING

HCL Technologies, Pune, India, May 2012 – Jul 2013

Lead Engineer

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- Led cost estimation and risk analysis for Manitowoc Crane products; used SAS PROC SQL and advanced data techniques to manage large engineering datasets and support pricing strategy within centralized governance frameworks.

Cummins Research & Technology India, Pune, India, Jan 2012 – Mar 2012

EngineerSupported R&D projects in engine systems testing and performance analysis contributed to failure mode analysis and precision component evaluation.

Tata Motors ,Pune, India, Jan 2009 – Nov 2011
Assistant Manager, Engine Development

- Managed engine development and systems validation projects; led cross-functional teams on stress testing, failure analysis, and quality control for commercial vehicle engine platforms — analytical discipline that directly informs current approach to financial model stress testing and risk assessment.

Tech Mahindra (formerly Mahindra Satyam) ,Hyderabad, India, Dec 2007 – Dec 2008
Developer / Analyst

- Delivered systems analysis and software development support for engineering clients; developed documentation and process workflows within structured project governance environments.

TECHNICAL SKILLS:

Languages & Analytics: Python, SAS, R, SQL, PostgreSQL, kdb+/q, NoSQL, SQLite
Big Data/Cloud: Azure Databricks, PySpark, Azure, GCP, AWS
ML & Libraries: TensorFlow, Keras, Scikit-Learn, Pandas, NumPy, SpaCy
Visualization & BI: Tableau, Power BI, Matplotlib, ggplot
Tools: JIRA, Confluence, MS Project, GitHub, Visual Studio Code, SQL Server, Flask (REST APIs), React (Moderate)

CORE COMPETENCIES:

CCAR & Scenario-Driven Stress Testing | Balance Sheet Modeling & Projections | Liquidity & IRR Analytics | Treasury Analytics
Model Development, Validation & Governance | CCAR Stress Testing | IRRBB | Credit Risk (PD/EAD/LGD)
Predictive Modeling & Machine Learning | Time Series Forecasting | Statistical Analysis
Stakeholder Management | Cross-Functional Collaboration | Regulatory Documentation

VOLUNTEER ACTIVITY:

ALM Medical, Chicago, IL
Market Research Analyst- Health Sector

- Conducted market research and analysis to support strategic decision-making in the healthcare sector.