

JOB TITLE	:	SENIOR AI AND ML SPECIALIST
REPORTS TO	:	HEAD: ANALYTICS
BUSINESS UNIT	:	OPERATIONS
LOCATION	:	HEAD OFFICE: PRETORIA
POSITION STATUS	:	FIXED TERM
POSITION GRADE	:	D2

Purpose of the Job

The Senior AI and ML Specialist is accountable for leading Postbank's enterprise AI and machine-learning capability for assigned domains. The role defines AI/ML strategy, standards, governance, responsible-AI controls and MLOps practices, prioritises the AI/ML portfolio, directs the AI and ML Developer, and provides authoritative specialist leadership over high-impact AI/ML solutions that support secure, ethical, auditable and scalable operational decision-making.

Job Responsibilities

AI/ML Strategy, Portfolio and Governance

- Translate Postbank priorities into an AI/ML roadmap, standards and delivery portfolio for assigned domains.
- Prioritise AI/ML initiatives based on strategic value, feasibility, risk, data readiness, regulatory implications, resource availability and operational benefit.
- Define standards for responsible AI, solution design, model development, validation, explainability, deployment, monitoring, security and retirement.
- Advise the Head: Analytics and senior stakeholders on AI opportunities, constraints, risks, investment needs and implementation options
- Evaluate new AI technologies, tools, vendors and platforms and recommend adoption, containment or rejection based on value and risk.

AI/ML Solution Leadership and MLOps

- Lead complex AI/ML, deep-learning, NLP, optimisation, automation or generative-AI initiatives from concept to deployment handover.
- Approve or challenge AI architecture, algorithm choices, MLOps design, testing strategies, monitoring thresholds and integration approaches.
- Coordinate implementation dependencies with technology, BI, automation, data, risk, operations, compliance and business stakeholders.
- Oversee design and maintenance of MLOps practices for secure, scalable, repeatable and auditable AI/ML delivery.
- Present AI/ML findings, solution options, benefits, limitations and risk implications to executive, operational and technical audiences.

Responsible AI, Risk, Compliance and Auditability

- Own AI/ML governance artefacts, model registers, responsible-AI evidence, deployment documentation and monitoring evidence for assigned domains.
- Ensure compliance with POPIA, FSCA requirements, internal data-governance policies, information-security standards and model-risk controls.
- Oversee fairness, bias, explainability, privacy, robustness, security, drift and performance monitoring for AI/ML solutions
- Coordinate audit, assurance, regulatory or internal-control evidence relating to AI/ML solutions.
- Escalate material ethical, operational, security or compliance risks and recommend control improvements.

People, Resource and Capability Leadership

- Lead, allocate and monitor work of AI and ML Developer resources in line with portfolio priorities, quality gates and deadlines.
- Set role expectations, review performance inputs, coach AI engineering capability and identify development needs
- Contribute to recruitment, onboarding, probation input, workforce planning and succession planning for AI/ML roles.
- Manage workload, continuity, leave planning and delivery risk across AI/ML workstreams
- Promote a professional, responsible, secure and innovation-oriented AI delivery culture aligned to Postbank values

Qualifications and Experience

- Bachelor's degree in Mathematics, Data Science, Artificial Intelligence, Machine Learning, Software Engineering, Statistics, Applied Mathematics, or a related quantitative/technology field (NQF Level 7).
- Honours or Masters degree in AI, machine learning, data science, computer science, analytics or related field (NQF Level 8/9) (Ideal)
- 8+ years Relevant Artificial Intelligence and Machine Learning-related experience at a Specialist level
- 5+ years Managerial / Team Lead experience
- Relevant experience in the Banking Industry (Advantageous)

Skills and Attributes

- Uncompromising integrity, honesty, and professional ethics.
- Respectful and professional conduct at all times.
- Strong personal accountability and ownership.
- A commitment to excellence in every deliverable.
- High levels of resilience and perseverance when facing obstacles.

- Self-motivation and the ability to operate independently.
- Continuous learning and intellectual curiosity.
- Loyalty to team objectives and organisational success.

Phase	Target Skills & Algorithms	Tech Stack Mapping
1. Core Data & BI Engineering	Database optimization, automated ETL pipelines, stored procedures.	SQL Server (SSMS, SSIS), Power Query
	Advanced data modeling, context filtering, row-level security, cloud deployment.	Power BI (DAX), Tableau
	Statistical profiling, macro migration, legacy predictive validation.	SAS
2. Predictive AI & Automation	Binary classification, feature engineering for upsell/cross-sell propensity modeling.	Python (scikit-learn, XGBoost), R, SQL Server
	Regression trees, ensemble learning, automated lead generation scoring engines.	Python, SQL Server, Power Query
	Survival analysis, lifetime value (LTV) estimation, NLP for service ticket intent.	Python (lifelines, HuggingFace), R, Power BI
3. Advanced Optimization & Geo	Location allocation algorithms, spatial clustering, spatial regression.	ArcGIS, Python (GeoPandas, PySAL)
	Constrained optimization, attribution modeling, marketing mix modeling (MMM).	Python (SciPy.optimize), R
	Bridging deep tech with executive business decisions, setting architectural patterns.	Full Ecosystem Transformation

How to Apply

If you wish to apply and meet the requirements, please forward your Curriculum Vitae (CV) to RecruitmentSN@Postbank.co.za. Please indicate in the subject line the position you are applying for. To view the full position specification, log on to www.postbank.co.za and click on Careers.

Closing Date

16 September 2026

Disclaimers

The South African Postbank SOC Limited is committed to the achievement and maintenance of diversity and equity in employment, especially with regard to race, gender and disability. In compliance with the bank's employment equity plans, we encourage and welcome applications from diverse groups from the South African Employee active population. Correspondence will be limited to short-listed candidates only.

If you do not hear from the South African Postbank SOC Limited or its Agent within 3 months of this advertisement, please accept that your application has been unsuccessful. The South African Postbank SOC Limited reserves the right not to fill the positions or to re-advertise the positions at any time.

POPIA provides that everyone has the right to privacy and it includes a right to protection against the unlawful collection, retention, dissemination and use of personal information. By applying for employment you consent to the processing of your personal information with Postbank. Your personal information and any attached text or documentation are retained by Postbank for a period in accordance with relevant data legislation.