

Emir Rakhim

Jakarta, Indonesia | Open to relocation and remote work

[LinkedIn](#)

PROFILE

Risk & strategy analyst and AI product builder with 3.5+ years in banking (DBS) and fintech payments (ShopeePay, part of Sea Group). Ships production fraud rules, growth and risk analysis, and AML monitoring, then builds AI agents that make individual and team investigations audit-ready and up to 95% faster.

PROFESSIONAL EXPERIENCE

ShopeePay (Sea Group) — Jakarta, Indonesia

Fraud Analyst (Risk & Strategy team) · July 2025 – Present

Sea Group's payments arm and one of Southeast Asia's largest e-wallet platforms, licensed by Bank Indonesia as a payment service provider (PJP). Owns fraud and AML detection across QRIS, merchant payment, rewards, and promo/referral flows, using SQL pipelines, monitoring dashboards, and production AI agents built for the fraud and risk analyst team.

- Cut deep dive investigation and reporting time by up to **95%** by building **FRIDA (Fraud Risk Intelligence Detection Agent)**, an internal multi-agent AI system that replaces manual queries with a consistent, auditable analysis framework for daily fraud monitoring, promo abuse deep dives, and fraud-rule recommendations. Built on React/Node.js with LLM orchestration and RAG over a fraud knowledge base.
- Cut daily fraud loss by **59%** during a high-volume partner campaign by engineering post-detection blocking protocols that delivered structural cost savings.
- Lifted AML transaction-monitoring true-positive rate **to 93%** by recalibrating newly deployed, previously untuned alert parameters across critical detection rules, capturing 90% more non-compliant anomalies while cutting daily false-positive noise.
- Cut query runtime by **96%** and peak memory by **~99%** by re-architecting fraud detection query.
- Drove a **KYC and device-fingerprinting redesign across multiple teams** by uncovering recycled-identity abuse in device verification, preventing referral-incentive promo fraud.
- Closed a recurring reward cash-out leak by uncovering abusive patterns and shipping stricter game-device limits with product teams.

DBS Bank — Jakarta, Indonesia

Senior Data Analyst · January 2025 – July 2025

- Migrated 15 production analytics scripts to Python on AWS (Pandas, PySpark, DuckDB, Dagster, NumPy), enabling the bank's cloud migration across transaction monitoring (QRIS, BI-FAST, Transfer, Remittance), campaign, and acquisition workloads.
- Built an internal PySpark + Tableau library adopted across teams, standardizing analytics workflows and accelerating data delivery.

Data Analyst · January 2023 – January 2025

- Saved **824 hours/year** (103 workdays; 44% of BAU reporting budget) by building the automation pipeline that replaced manual reporting — Python, Dagster, SAS — at 100% reporting accuracy.
- Delivered **4 regulatory reports** to DBS Regional HQ (Singapore), Bank Indonesia, and OJK; built **15+ interactive Tableau dashboards** and tuned legacy dashboards for faster refresh and load.
- Segmented QRIS payment customers with RFM analysis and K-Means clustering (Python, scikit-learn), driving targeted growth and digital-marketing campaigns.
- Identified transaction and onboarding fraud patterns that became new bank-wide SOPs; delivered **50+ ad-hoc analyses** for Growth, Product, Marketing, Operations, Finance, Compliance, and Sales.

SELECTED PROJECTS

- **ERAI (self-hosted personal AI assistant)**: multi-agent tool orchestration with persistent memory, Supabase pgvector RAG, multi-LLM routing (OpenRouter, GPT-4o, GLM), and a multimodal pipeline that turns receipt photos and Gmail into structured finance records. Docker on a Linux VPS; Telegram bot UI; parallel tool calls for 2–3× faster responses; zero hallucination protocol for financial data. Evolution: n8n prototype → OpenClaw → fully custom stack.
- **HR Attrition Dashboard** (Tableau) : Attrition, demographics, and retention insights. <https://public.tableau.com/app/profile/emir.rakhim/vizzes>
- **Data Science Job Market Analysis** (BigQuery, Python, Looker Studio): Analyzed salaries, remote share, and role mix across data jobs: BigQuery extraction, Python cleaning, Looker Studio dashboard. <https://emirrakhim.github.io>

EDUCATION

Universitas Indonesia — B.Sc. Geology · 2018 – 2022

GPA 3.71/4.00, graduated cum laude. Quantitative modelling and spatial analysis.

Deputy, Development & Cadre Division, Faculty Student Executive Board (BEM FMIPA UI), 2020–2021.

SKILLS

Data & engineering: SQL (Presto/Trino, BigQuery) | Python (Pandas, PySpark, NumPy, scikit-learn) | DuckDB | Dagster | AWS | SAS | Docker | Linux VPS | Git

BI & visualization: Tableau | Looker Studio | Excel

Applied AI: LLM orchestration & agent tooling (OpenClaw) | AI-assisted development (Claude Code, Codex) | RAG (Supabase pgvector, embeddings) | multi-LLM routing | n8n | Google APIs/OAuth | React | Node.js

Domain: Risk strategy | Growth analytics | Fraud & AML detection | Transaction monitoring | Regulatory reporting (Bank Indonesia, OJK) | Payments analytics

CERTIFICATIONS & LANGUAGES

- [Google Data Analytics](#)
- [IBM Data Analytics \(Python and SQL Course\)](#)
- [ICT Certified Data Analyst Trainee](#)
- [Macquarie University: Excel for Business Essentials](#)
- Language: Bahasa Indonesia (native) | English (C1)