KEAT YANG KOAY

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SUMMARY

Hands-on, full-stack and execution-driven data science leader (Staff/Principal scope) with a track record of shipping data products (ML, agentic AI) and decision frameworks that move business metrics. Blends rigorous experimentation with pragmatic engineering to deliver impact under ambiguity. Expert in e-commerce analytics, applies economics and econometrics principles to solve business problems. Builds high-performance teams, coaches senior ICs, and partners cross-functionally to align models to business outcomes.

Core strengths: Causal inference & A/B testing, date modelling and engineering, ML/AI-led data science solutions, forecasting, product thinking.

CORE SKILLS

- **ML/Stats:** Causal inference for decision making, AI/ML solutions for the appropriate business problems.

- **Experimentation:** Metric designs, guardrails, variance reduction, decision making from experiments.

- **Data & Platforms:** Python, SQL/BigQuery, GCP (Dataflow/Composer/Vertex), dbt, Airflow, Looker/Mode/Tableau.

- **Product & Leadership:** Problem framing, roadmap & OKRs, cross-functional influence, writing & comms, mentoring, reviews, incident playbooks, performance bar-raising

- **Pricing & Business Decision**: Pricing optimization, Investor Relations and delivering business insights for executive decisions and board updates.

EXPERIENCE

Senior Staff Data Scientist — Commerce-Loop, Shopify | Vancouver, BC (Remote) | Aug 2023–Present

- Led data science for **Custom Storefronts (Hydrogen, Headless, Shopify Web Components)**, partnering with eng/product to onboard multi-million-GMV merchants; unblocked headless adoption with instrumentation, benchmarks, and migration analytics.

- Built an **agentic AI pipeline** that analyzes merchant theme code and proposes conversion improvements and safe code-change assessments; accelerated merchant iteration velocity and reduced support burden.

- Drove launches & data-driven iterations for **Shopify Bundles**, **increased variant limits**, and **Catalogs (now part of Markets)**—owning experimentation, metric design, and adoption readouts across Merchandising.

- **Cut time-to-connect for 3rd-party domains** by instrumenting the domain connection funnel and running A/B tests on UX and infra changes; materially reduced onboarding friction and time-to-first-sale.

- Spun up **Product Marketing analytics** for Shopify Editions with robust pipelines and reporting, targetted messages to the right merchant audience, enabling clearer attribution and ROI narratives for feature launches.

- Automated **metric anomaly detection** and **growth accounting**, reducing ongoing DS toil by **~20% FTE** for the domain; freed bandwidth for higher-leverage analysis.

- **Owner of the data team's pair-programming loop**: instituted review rituals, pairing rotations, and quality bars that improved code health and knowledge diffusion.

Senior Manager, Finance Data Decision Science — Shopify | Ottawa, ON | Jul 2017–Aug 2023

- Built a **company-wide anomaly detection** and driver-annotation dashboard that enabled rapid reaction to unexpected trends and surfaced revenue opportunities.

- **Revamped the Affiliates program** to align LTV to CAC, tightening payback discipline and improving unit economics.

- Partnered with Finance/Payments on **price increases and margin optimization** for Shopify Payments; supported scenario modeling and guardrails.

- **Automated chargeback workflows** and tuned dispute strategy, improving win rate from **3.0% → 4.2%** and **avoiding ~7 FTE** in manual ops.

- Automated **monthly variance analysis**, freeing Accounting capacity and shortening close/analysis cycles.

- Provided **Investor Relations & PR data support** and executive/board-level insights on macro impacts to MRR/GMV and cohort health.

- Automated **Tax team audit-request workflows**, reducing cycle time and risk of misses.

- Shipped foundational **data models** for **MRR, GMV**, and **merchant-grained P&L** used in reporting, forecasting, and cohort analysis.

- **Progressive promotions** from IC → Manager → **Senior Manager** based on scope expansion and cross-functional impact.

Business Intelligence Analyst — Bell Canada | Toronto, ON | Prior to 2017

- Generated **$31.9M** in quantified benefits by steering capital allocation and initiatives that reduced churn, produced sales leads, lowered call volume, and improved QoS.

- Led data acquisition & development projects to create **generalizable, connectable datasets** powering CX improvements, process diagnostics, and revenue opportunities.

- Served as an internal consultant across business units to leverage data assets for **business cases, campaign targeting, measurement design**, and capex decisions.

- Applied statistics and ML to optimize processes/products and detect emerging opportunities; merged disparate data sources for **end-to-end business case** views.

- Improved the **data acquisition process**, ensuring investments met ROI thresholds and were backed by clear documentation for analysts and developers.

- Trained teammates on **data prep/wrangling** across varied data types, structures, and sizes to accelerate insight generation.

- **Award:** Customer Operations Execution Excellence for analysis that drove a **15% reduction in calls** from new customers by identifying call drivers to fuel self-serve initiatives.

EDUCATION

McGill University — B.A., Joint Honours Economics & Finance; Minor in Mathematics (2010–2014)
Activities: NetRoots, Quantdary, Ubersim