

DARRYL NG

Principal Engineer (Data & AI)

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SUMMARY

Builds production LLM agents on data foundations a business can trust. Principal Engineer (Data & AI) at Rome2Rio, a senior IC in the 8-person data and analytics team and the go-to engineer for data and AI solution engineering and architecture, with 15 years in software and data engineering. Built and shipped Rome2Rio's company-wide AI data analyst in Slack, with its own evaluation, tracing and CI-gated deployment platform, on top of a governed semantic layer, data quality checks and pipelines on GCP, BigQuery, dbt, Looker and Dagster. Previously led data quality and governance engineering for ANZx Bank at Cognizant Servian, and co-founded Navarch Technologies, a SaaS platform for mining producers. Speaker on operationalising AI agents at Data & AI Architecture Melbourne 2026. MBA from Melbourne Business School, with a habit of tying engineering work to revenue, cost and risk.

KEY ACHIEVEMENTS

- AI data analyst in Slack (Claude Managed Agents): 30 users across 9 teams in its first 3 months, 56% outside the data team, ~75 analyst hours saved a month (Rome2Rio)
- LLMOps platform: 32-case eval suite from real questions, Langfuse tracing, agents as code with prod deploys gated in CI at an eval score of 0.70 or above (current score 0.79) (Rome2Rio)
- 45% cut in BigQuery cost, about A\$300k saved a year (Rome2Rio)
- Speaker, Data & AI Architecture Melbourne 2026: operationalising AI agents
- Data quality engine and metadata-driven governance (DLP, policy tags, RBAC) built from scratch on GCP and dbt (ANZx Bank)

SKILLS

Applied AI and LLMOps: LLM agents, Claude / Anthropic API, Claude Managed Agents, MCP tools, LLM-as-judge evaluation, eval-gated CI, Langfuse tracing and feedback scoring, prompt versioning, guardrails and permissions

Data Foundations: data modelling, semantic layer, metric definitions, data quality, data governance, metadata and lineage, policy tags, DLP, RBAC

Platform and Cloud: GCP, BigQuery, Kubernetes (GKE), Cloud Run, Terraform, Docker, GitHub Actions, Fly.io, Snowflake, AWS, cost and performance governance

Pipelines and Analytics: dbt, Dagster, Airflow, Airbyte, Snowplow, Looker, SQL, batch and streaming ingestion, partner and API integrations

Application Engineering: TypeScript, Python, Directus, PostgreSQL (Neon), C++, C#, Java

Leadership and Influence: technical leadership, architecture direction, data roadmaps, hiring and technical interviews, mentoring, code review, workshops, stakeholder engagement

WORK EXPERIENCE

Rome2Rio

Principal Engineer (Data & AI)

08/2025 - Present

Travel-tech platform processing terabytes of data a day. Senior IC in the 8-person DNA (Data and Analytics) team and the go-to engineer for data and AI solution engineering and architecture; own the data platform, governance and applied AI, and represent data to leadership.

Responsibilities

- Set the data and AI roadmap and architecture direction with leadership
- Drive AI agent adoption and enablement across engineering, product and commercial teams
- Define guardrails, read-only defaults and evaluation for AI agents working on company data
- Own warehouse metadata, quality metrics and the semantic layer that powers Looker self-service
- Interview and assess senior data hires, including running technical rounds

Achievements

- Built and shipped ask-data-bot-r2r, Rome2Rio's company-wide AI data analyst in Slack on Claude Managed Agents, used by 30 people across 9 teams in its first 3 months, 56% from outside the data team
- Runs Looker and BigQuery queries and returns the SQL behind every number, so answers are auditable; an estimated ~75 analyst hours saved a month for ~US\$50 of agent cost

- Designed the evaluation and deployment platform: a 32-case eval suite built from real user questions and scored by an LLM judge, Langfuse tracing with user-feedback scores, and agents defined as code with prod deploys gated in CI at an eval score of 0.70 or above (current score 0.79)
- Reduced recorded data platform outages from 12 in 2024 to two in 2025
- Put Google Ads and Microsoft Ads conversion uploaders into production, freeing one full-time role of manual work

Lead Data and Platform Engineer

08/2023 - 07/2025

Hired to re-architect the batch and streaming data platform for timeliness, observability, quality and cost.

- Re-architected the data platform and built orchestration and ingestion on Kubernetes for terabytes a day
- Cut BigQuery cost by 45%, about A\$300k a year
- Introduced CI/CD, testing and code review standards for data pipelines during the migration
- Co-hosted a 3-day hackathon with Google

Navarch Technologies

Co-founder

11/2023 - Present

Cloud platform that automates commodity sales for mining producers: contracts, invoices, cashflow reports and live pricing.

- Build the product end to end in TypeScript on Directus, PostgreSQL (Neon), GCP and Fly.io
- In production with 2 mining producer clients

Cognizant Servian

Principal Consultant

12/2022 - 08/2023

Cloud, data and AI consultancy. Data governance tech lead for ANZx Bank, plus internal Data & AI practice lead.

- Led data governance engineering at ANZx: metadata, policy tags, DLP and RBAC to meet regulation across all data assets
- Owned the Victorian Data & Analytics and Computer Vision AI practice, training and pre-sales material
- Mentored 5 consultants and interviewed senior consultant candidates

Data Engineering Lead, ANZx Bank

08/2021 - 11/2022

ANZ's digital innovation arm. Led a team of 3 building a data quality engine from scratch on GCP with dbt.

- Automated data quality checks from declared rules and published the results for governance
- Designed metadata management; introduced CI/CD and unit tests for data and data models

Engagement Lead, Bunnings

01/2021 - 07/2021

DevOps and data uplift for the Customer Ordering System (all in-store and online transactions) on Snowflake, Oracle and Azure; brought in test automation and local dev environments, reducing defects and environment cost.

Earlier Career

- **Blackmagic Design**, Senior Embedded Software Engineer (06/2016 - 11/2020): core camera features on a new micro-kernel OS across 6+ cameras used by Netflix and HBO productions
- **Redflex Traffic Systems**, Software Engineer (02/2012 - 06/2016): image processing algorithms for speed camera enforcement evidence
- **GPS Golf Solution**, Co-founder (06/2011 - 2017): golf cart tracking product (hardware, Android, web) with cart telemetry on AWS, rolled out to 21+ courses in AU and NZ

CONFERENCE PRESENTATIONS

Data & AI Architecture Melbourne 2026

09/2026

The Rise of AI Agents: From Experimentation to Operational Reality

- Data foundations first, tight scope and boundaries, build what does not commoditise, start internal, scale through evaluation

EDUCATION

MBA, Melbourne Business School

2021

Dean's List, weighted average 81.4, First Class Honours

Bachelor of Engineering (Electronics and Communications), RMIT University

2012

GPA 3.9, First Class Honours. Ray Martin Prize for most outstanding B.Eng. student; Gold Medal for graduate thesis

Languages: English, Mandarin