

# Roadmap to Acquire a Data Role in the Northern Territory (NT)

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## Phase 1: Foundation (0–3 months)

**Objective:** Build strong fundamentals in data handling and reporting.

- Learn SQL (joins, aggregations, subqueries, window functions).
- Excel/Google Sheets: pivot tables, lookups, charts.
- Intro to BI Tools: Power BI (focus), Tableau optional.
- Python/R basics: data wrangling with pandas/numpy or tidyverse.
- Develop communication skills — practice turning data into clear insights.

**Output:** Mini-projects (e.g., analysing ABS or NT Open Data), shared on GitHub.

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## Phase 2: Technical Skills Expansion (3–6 months)

**Objective:** Strengthen technical profile across analytics and engineering.

- Power BI advanced: DAX, data modeling (star/snowflake).
- SQL deeper dive: stored procedures, optimization.
- Cloud basics (Azure preferred in NT; AWS optional): Data Factory, Synapse.
- Intro to ETL/ELT: build pipelines (Python/ADF/Airflow basics).
- Learn data governance concepts (privacy, data quality, lineage).

**Output:** End-to-end project — pipeline + reporting dashboard.

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## Phase 3: Specialisation (6–9 months)

**Objective:** Choose focus role (Analyst, Engineer, DWH, DBA).

- **Data Analyst Path:** Statistics (hypothesis testing), Power Query, APIs, Excel automation.
- **Data Engineer Path:** Spark basics, orchestration, CI/CD (GitHub Actions/Azure DevOps).
- **DWH Specialist Path:** Dimensional modeling, ETL tools (ADF/dbt/SSIS), semantic models.
- **DBA Path:** SQL Server/Oracle admin basics, backup/restore, indexing, security.

**Output:** Capstone project aligned with chosen path.

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## Phase 4: NT-Focused Preparation (9–12 months)

**Objective:** Align skills with NT job market.

- Study NT selection criteria style; prepare STAR (Situation, Task, Action, Result) responses.
- Build portfolio with NT-relevant datasets (education, utilities, health, resources).
- Volunteer or internship in local councils, CDU, or NT Government graduate programs.
- Network via CDU Careers, LinkedIn NT Data/IT groups, industry meetups.

**Output:** Tailored CV + portfolio + selection criteria examples.

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## Phase 5: Application & Interview (12+ months)

**Objective:** Secure first entry-level role.

- Target NT Government AO4–AO6 roles or Graduate programs.
- Apply to utilities (Power and Water, Territory Generation), CDU, Menzies, INPEX, consulting firms.
- Showcase projects in interviews (demo dashboards/pipelines).
- Demonstrate stakeholder communication, problem-solving, and adaptability.

**Output:** Offer for Graduate/Junior Data role in NT.

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## Continuous Development (Ongoing)

- Upskill in cloud certifications: Azure Data Fundamentals, DP-203, AWS Data Analytics.
- Develop soft skills: stakeholder engagement, cross-cultural communication (important in NT).
- Stay updated with data privacy laws and Indigenous data sovereignty principles.