

Analytics Engineer Career Roadmap (2025 Edition)

Stage 1 — Core Foundations

1. SQL

- SELECT, WHERE, GROUP BY
- JOINS
- Window functions
- CTEs and subqueries
- Indexing and performance

2. Python Basics

- Pandas
- Automation scripts
- Data validation

Stage 2 — Data Warehousing & BI

- OLTP vs OLAP
- Dimensional modeling
- Star & snowflake schemas
- Cloud data warehouses: Snowflake, BigQuery, Redshift

Stage 3 — dbt (Core Skill)

- Models
- Tests
- Documentation
- Macros
- Deployment

Stage 4 — Data Modeling

- Kimball methodology
- SCD types
- Fact & dimension designs

Stage 5 — Data Engineering Lite

- ELT tools
- Airflow / Prefect
- Git & CI/CD

Stage 6 — BI & Dashboards

- Looker
- Tableau
- Power BI
- KPI/Metric design

Stage 7 — Data Governance

- Data quality tests
- Catalogs
- Documentation

Stage 8 — Portfolio Projects

- SQL analytics
- dbt pipelines
- End-to-end modern data stack

Stage 9 — Job Readiness

- SQL interviews
- Case studies
- Dashboard explanations

