Data Career Path Roadmap

Data Analyst

Level 1: Beginner: Basic SQL, Excel, Simple Visualizations

Level 2: Intermediate: Advanced SQL, R/Python, Intermediate Machine Learning

Level 3: Advanced: Complex data models, Predictive analytics

Level 4: Expert: Data-driven business strategy

Level 5: Leader: Leadership in analytics initiatives

Data Engineer

Level 1: Beginner: Basic database knowledge, ETL tools

Level 2: Intermediate: Advanced database management, Data warehousing

Level 3: Advanced: Cloud services, Big data technologies

Level 4: Expert: Architecting scalable data solutions

Level 5: Leader: Strategy for data infrastructure

Machine Learning Engineer

Level 1: Beginner: Basic ML algorithms, Python/R

Level 2: Intermediate: Advanced ML models, Feature engineering

Level 3: Advanced: Deep learning, Model optimization

Level 4: Expert: ML deployment, Automated ML systems

Level 5: Leader: ML strategy and innovation

Data Scientist

Level 1: Beginner: Statistical analysis, R/Python

Level 2: Intermediate: Machine learning, Data wrangling

Level 3: Advanced: Deep learning, AI technologies

Level 4: Expert: Advanced predictive modeling

Level 5: Leader: Leading data science research and development

AI Specialist

Level 1: Beginner: Basic AI concepts, Programming

Level 2: Intermediate: Neural networks, TensorFlow/Keras

Level 3: Advanced: Reinforcement learning, AI optimization

Level 4: Expert: AI system integration

Level 5: Leader: AI strategy and ethical AI leadership

BI Developer

Level 1: Beginner: Report creation, Basic data analysis

Level 2: Intermediate: Complex reporting, Dashboards

Level 3: Advanced: Data mining, BI software expertise

Level 4: Expert: Advanced analytics and visualization

Level 5: Leader: BI strategy and management