# Career Gap Analysis

Date: Tuesday, April 22, 2025

## Career Goal

Data Analyst

To become a data analyst, leveraging technical and analytical skills to extract actionable insights from data, support data-driven decision-making, and drive business value using modern analytics tools and methodologies.

## Skill Gaps

Comparison of Current Skills/Experience vs. Typical Data Analyst Requirements:

|  |  |  |  |
| --- | --- | --- | --- |
| Area | Typical Requirement | Your Current Status | Gap Identified |
| Technical Skills | Python, R, SQL, Excel, data visualization (Tableau/Power BI), statistics | SQL, advanced analytics tools, A/B testing, large datasets | Python/R, Excel, data visualization |
| Data Visualization | Tableau, Power BI, Qlik, Looker, advanced Excel charts | Not explicitly stated | Data visualization tools |
| Statistical Analysis | Statistical modeling, stats software (SAS, SPSS, R, Python) | Split testing, analytics tools | Statistical modeling/statistics software |
| Programming | Python and/or R for data analysis | Not mentioned | Python/R proficiency |
| Database Management | SQL, database platforms (MySQL, PostgreSQL, etc.) | SQL | No mention of other databases |
| Spreadsheet Proficiency | Advanced Excel/Google Sheets | Not mentioned | Advanced Excel skills |
| Certifications | Google Data Analytics, IBM Data Analyst, Microsoft Power BI, CAP, CompTIA Data+ | Not listed | Analytics/data science certifications |
| Education | Bachelor’s in data analytics, statistics, CS, or related field | Not provided | Unknown—ensure relevant education is highlighted |
| Soft Skills | Communication, problem-solving, collaboration, leadership | Leadership, collaboration, content strategy | Strong; continue to emphasize communication |
| Experience | 1–3 years (entry), 3–5 years (mid-level), hands-on with real-world datasets | Extensive analytics, experimentation, tool development | Strong; frame for analytics roles |

Summary of Skill Gaps:

* Lack of Python/R programming experience
* No explicit data visualization tool experience (Tableau, Power BI, etc.)
* No advanced Excel skills mentioned
* No explicit statistical modeling/statistics software experience
* No analytics/data science certifications listed
* Education background not specified

## Actions to Close Gaps (Highest to Lowest Priority)

## 1. Python (and R) Programming for Data Analysis

* Take Courses:
  + *Data Analysis with Python* (IBM, Coursera)
  + *Python for Data Science and Machine Learning Bootcamp* (Udemy)
  + *Data Science: R Basics* (Harvard, edX)
* Certifications:
  + *IBM Data Analyst Professional Certificate* (Coursera)
  + *Google Data Analytics Certificate* (Coursera)
* Practice:
  + Work on Kaggle datasets, guided projects on DataCamp, or Coursera

## 2. Data Visualization Tools (Tableau, Power BI, Excel)

* Take Courses:
  + *Data Visualization in Tableau* (edX)
  + *Analyzing and Visualizing Data with Power BI* (edX)
  + *Excel Skills for Data Analytics and Visualization Specialization* (Coursera)
* Certifications:
  + *Tableau Desktop Specialist*
  + *Microsoft Certified: Data Analyst Associate (Power BI)*
* Build Projects:
  + Create dashboards using public datasets

## 3. Statistical Analysis & Modeling

* Take Courses:
  + *Introduction to Data Analytics* (IBM, Coursera)
  + *Harvard Business Analytics Course*
  + *Introduction to Statistics in Python* (DataCamp)
* Apply Skills:
  + Conduct hypothesis tests and regression modeling on real datasets

## 4. Advanced Excel for Analytics

* Take Courses:
  + *Excel Skills for Data Analytics and Visualization Specialization* (Coursera)
  + *Microsoft Excel – Excel from Beginner to Advanced* (Udemy)
* Projects:
  + Create dashboards, use pivot tables, automate reporting

## 5. Certifications to Validate Skills

* Earn Certifications:
  + *Google Data Analytics Professional Certificate* (Coursera)
  + *IBM Data Analyst Professional Certificate* (Coursera)
  + *DataCamp Data Analyst Associate Certification*
  + *Tableau Desktop Specialist* or *Certified Data Analyst*

## 6. Portfolio & Experiential Learning

* Build Projects:
  + End-to-end analytics projects: data cleaning, EDA, modeling, visualization, reporting
* Gain Experience:
  + Freelance, internship, or volunteer data analysis projects
  + Participate in data hackathons or competitions (e.g., Kaggle)

## 7. Optional: Advanced Education

* If lacking a quantitative degree, consider online microdegrees or certificates in data science or analytics