

# Roadmap for Data Science - Data Visualization & BI

## Skills to Develop:

### ☒ Technical Skills:

- **Data Visualization:** Tableau, Power BI, Looker, Matplotlib, Seaborn.
- **BI Tools & Dashboards:** SQL Server, Google Data Studio, DAX for Power BI.
- **Programming:** Python (Pandas, NumPy), R, SQL.
- **Big Data Technologies:** Hadoop, Spark, Google BigQuery.
- **Cloud Platforms:** AWS, Azure, Google Cloud (for cloud-based BI solutions).

### ☒ Soft Skills:

- **Storytelling with Data:** Presenting complex insights in a compelling way.
- **Critical Thinking & Business Acumen:** Understanding business challenges and translating them into data-driven solutions.

## Certifications to Pursue:

### Beginner-Level:

- Google Data Analytics Professional Certificate
- Microsoft Certified: Power BI Data Analyst Associate
- Tableau Desktop Specialist

### Intermediate-Level:

- IBM Data Science Professional Certificate
- AWS Certified Data Analytics – Specialty
- Data Visualization with Python (Datacamp, Coursera)

### 3 Advanced-Level:

- Certified Business Intelligence Professional (CBIP)
- DASCA Senior Data Scientist
- Microsoft Certified: Azure Data Engineer Associate

#### 🎯 Short-Term Goals (1-3 years):

- ☒ Learn **Power BI, Tableau, SQL, and Python for data visualization.**
- ☒ Complete at least one **certification** (e.g., Google Data Analytics, Power BI).
- ☒ Build a **portfolio with interactive dashboards** and real-world datasets.
- ☒ Gain hands-on experience through **internships or freelance projects.**
- ☒ Contribute to **open-source projects on GitHub** and participate in **Kaggle competitions.**

#### 🚀 Long-Term Goals (5-10 years):

- ☒ Master **advanced BI tools** and work with **big data technologies.**
- ☒ Lead **BI and analytics projects** for large organizations.
- ☒ Specialize in a **domain (finance, healthcare, retail, etc.)** to become a subject matter expert.
- ☒ Become a **BI Architect, Director of Analytics, or Chief Data Officer (CDO).**
- ☒ Teach, mentor, or contribute to the data science community through blogging, speaking at conferences, or developing training programs.