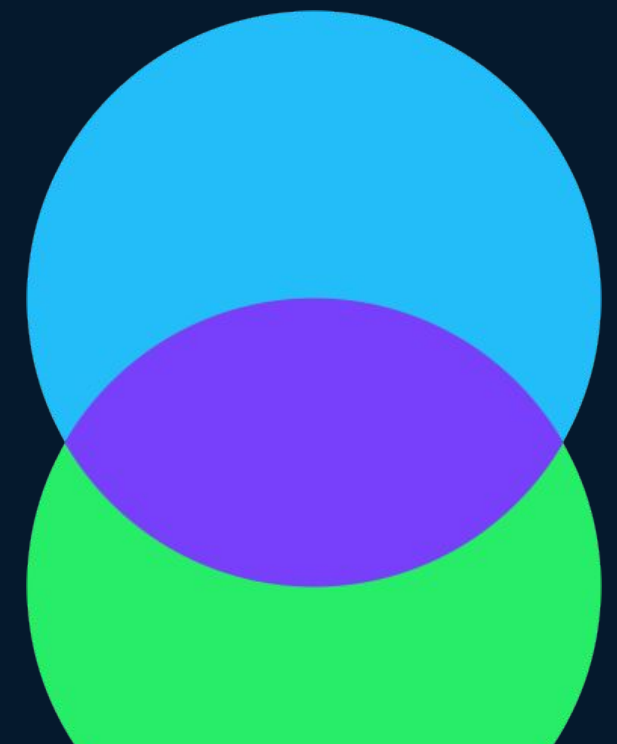


Creating a Data Portfolio

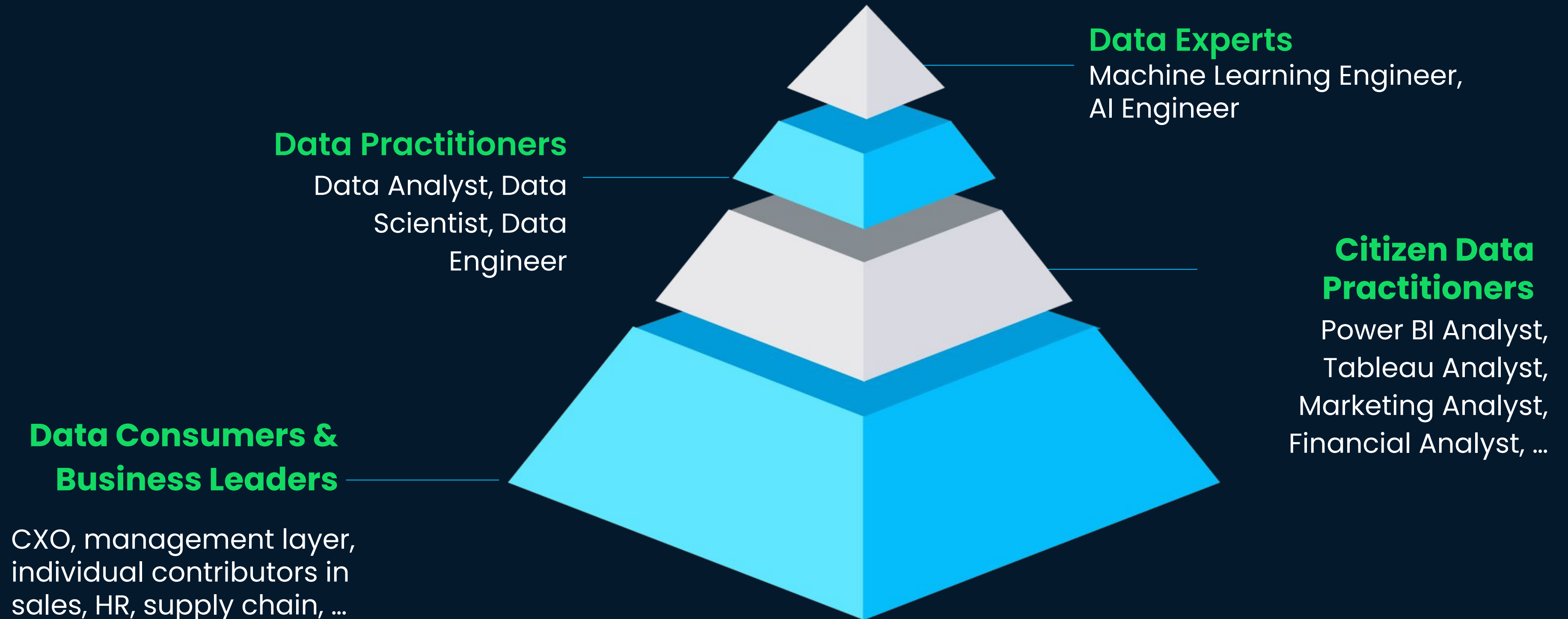
2023-12-07 | Richie Cotton



What skills are needed by different roles?



Most people need a few data & AI skills, a few people need a lot of skills



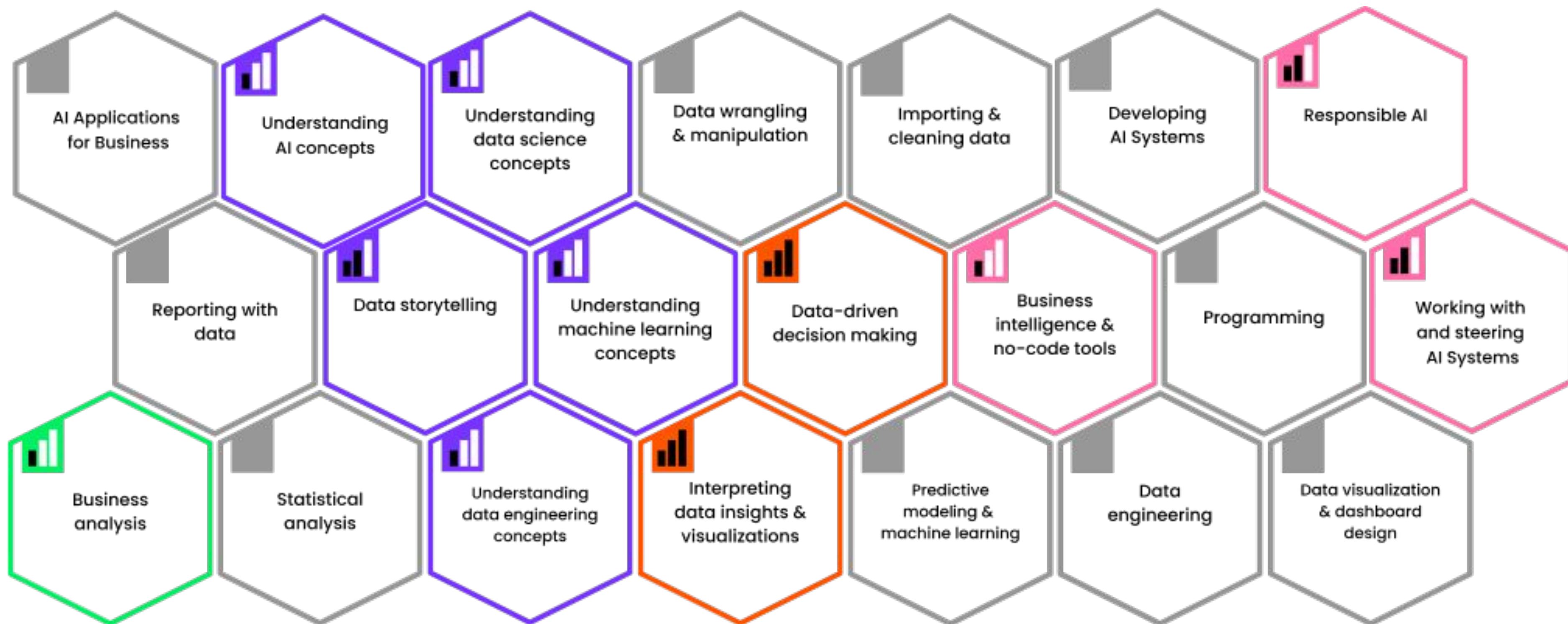
"One **skill** that is very important is **knowing how to translate** the very **technical to the more everyday** kind of work. You need to be able to have that **communication** back and forth."

- Vanessa Luzardo Gonzalez, Sr. Director of Data Science and Innovation at Businessolver
- [Behind the Scenes of Transamerica's Data Transformation](#)



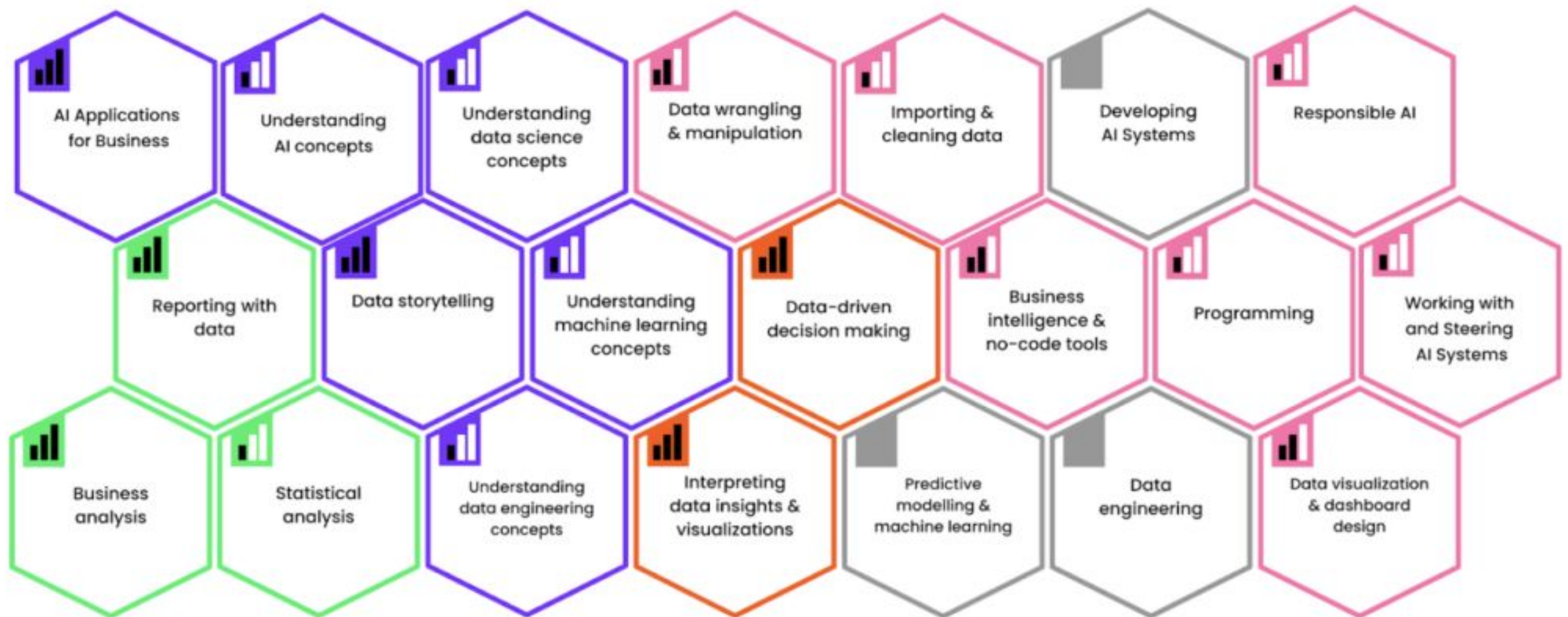
Competencies for **Data Consumers**

Understand your data colleagues, interpret data, and make decisions



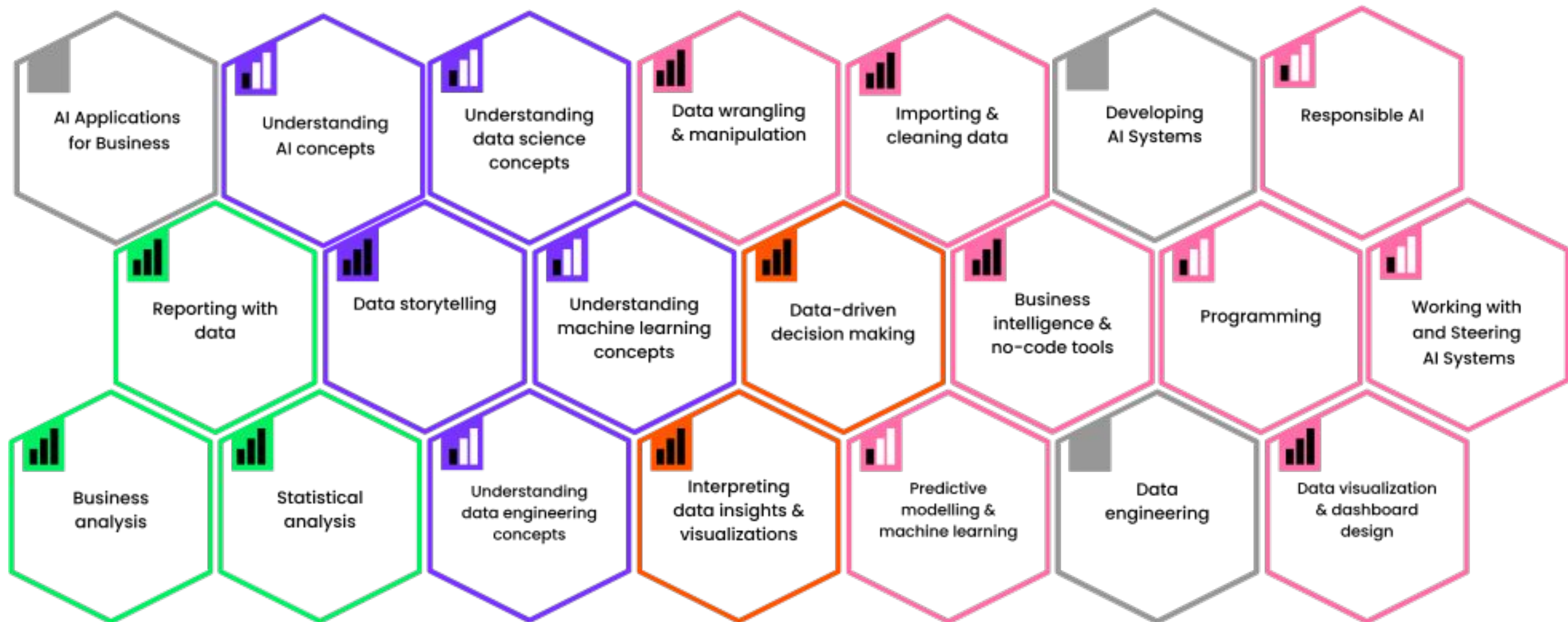
Competencies for **Citizen Data Practitioners**

Self-service analysis, create dashboards & reports, tell data stories



Competencies for Data Practitioners: Data Analysts

Data cleaning & manipulation, business intelligence, data storytelling



Competencies for Data Practitioners: Data Scientists

Machine learning & modeling, programming, statistical analysis



Competencies for Data Practitioners: Data Engineers

Programming, data cleaning & manipulation, automation



Competencies for Data Experts: Machine Learning Engineers

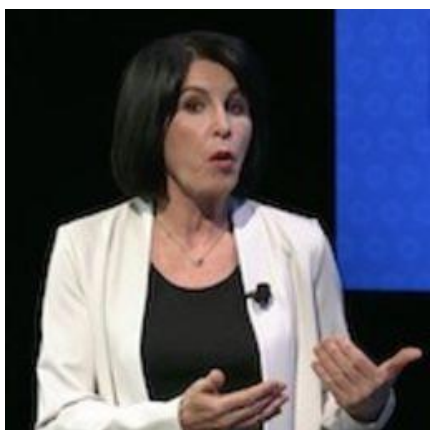
Machine learning & modeling, programming, working with AI



"The **most important skill** is **learning agility**.

That's the **curiosity** and **motivation** to **continuously learn throughout** the entirety of **your career**."

- Kelly Palmer, Chief Learning and Talent Officer at Degreed
- [Creating Learning Cultures](#)



What tools are needed by different roles?



Role	Tools
Data Consumer	Spreadsheets ChatGPT
Citizen Data Practitioner	Power BI, Tableau, Looker, Qlik, etc. SQL Salesforce, Heap, Marketo, HubSpot
Data Analyst & Data Scientist	Python, SQL, R
Data Engineer	Redshift, BigQuery, Snowflake, DataBricks git, Airflow, Spark, dbt, Fivetran, Kafka
Machine Learning Engineer	Python, SQL, R MLflow, Weights & Biases, DagsHub, KubeFlow, SageMaker, DVC

Data analyst deep dive: Reading a job description



How to read a job description

1. Read the job title
 - guess what the job is about
2. Read the qualifications
 - check for dealbreakers
 - determine skills you need to demonstrate
3. Read the responsibilities
 - see if it sounds fun
 - determine experience you need to demonstrate
4. Read the job description
 - See if there is any additional insight
5. Make a plan for showing off your skills

Data Analyst, SMB Sales GTM Insights

TikTok [🔗](#) (part of ByteDance) ★★☆☆☆ 171 reviews [🔗](#)

New York, NY

\$106,400 - \$160,000 a year

- It's Tiktok, so the job is about **sales of advertising products**
- "SMB" means small and medium businesses (**<500 employees**)
- "Go-to-market insights" means analyzing "do we have the **right product** for **this target audience, packaged** in a way that they'll appreciate?"

Qualifications

1. Minimum of 4 years experience in data analytics and data foundations.
2. Demonstrable and diverse work experience doing quantitative analysis.
3. Expert experience pulling large and complex data using SQL;
4. Experience with a data visualization tool (e.g. Tableau);
5. Experience with Python programming, nice to have;
6. Excellent verbal and written English communication skills with experience communicating the results of analyses.
7. Experience coaching, developing, and mentoring team members would be a key bonus for this role.
8. Ability to deliver simple and compelling stories to audiences of all levels.
8. Ability to deliver results in an organized manner.
9. Excellent verbal and written communication skills.

- Tech skills:
 - **SQL** for "complex data" (joins, maybe common table expressions)
 - data viz with **Tableau**
 - **Python**
- Soft skills:
 - verbal & written **communication** (*twice!*)
 - **coaching/mentoring**
 - **storytelling**

Responsibilities

1. Apply expertise in quantitative analysis, data mining, and the presentation of data to see beyond numbers and understand how our advertisers interact with our core products.
2. Partner with Sales, Marketing, Product and Engineering teams to solve problems and identify trends.
3. Build/maintain reports, dashboards, and metrics to monitor the performance of our sales & service teams and the SMB advertisers they support.
4. Mine massive amounts of data and extract useful product insights.
5. Develop strong working relationships with key stakeholders and cross-functional partners.
6. Serve as a thought leader on business challenges and the best analytical approach to measure impact & derive insights.
7. Analyze internal and external data and use predictive and statistical modeling techniques to uncover opportunities, develop solutions to customer marketing issues.

- Interaction with other teams (Sales, Marketing, Product, Engineering)
- Creating reports, dashboards, and metrics
- Understanding business challenges

TikTok's SMB team aims to help businesses and brands of all sizes unleash their creative side, connect with our audience, or perhaps be discovered! From **designing scaled sales and service delivery programs** to ensuring our **customers have best-in-class tools** and products at their fingertips, our SMB team combines operational expertise with a **customer-centric mindset** to help businesses achieve their marketing goals on TikTok, no matter how big or small.

"designing **scaled** sales and service delivery programs"

- There will be some automation/programming needed

"customers have best-in-class tools"

- Some of your work will go into production.
- Need to demonstrate defensive programming and testing skills.

"customer-centric mindset"

- Talk about experience helping customers

We're looking for a Data Analyst to support our SMB Sales Go-To-Market (GTM) Insights team. As a Data Analyst, you will drive quantitative analysis **projects from start to finish** regarding the SMB service channel, **developing insights that help us understand the effectiveness of our sales & service teams** and that identify opportunities to help SMBs grow to become successful advertisers. You will assist in the development of **SMB business metrics, data structures and analytical frameworks** and **partner cross-functionally** to use data to identify trends and solve problems.

"projects from start to finish"

- Some degree of ownership & self-sufficiency required.

"developing insights that help us understand the effectiveness of our sales & service teams"

- No analysis for analysis' sake. Work must lead back to business benefits.

"SMB business metrics, data structures and analytical frameworks"

- Research what useful business metrics might be.
- Your work needs to be portable from one project to the next.

"partner cross-functionally"

- You need to talk to commercial colleagues.

The plan!

1. **Create a report** on a sales or product dataset.
 - Use SQL. Include joins.
 - Include some business metrics.
 - Include some data visualizations.
 - Include business insights & make a narrative.
 - If appropriate, show some data cleaning or other data quality work.
2. **Create a Tableau dashboard** on a sales or product dataset.
 - Again, focus on metrics, visualizations, and business impact.
3. **Think of experience examples** for:
 - Working with SMBs.
 - Helping customers.
 - Verbal communication.
 - Working with Sales/Marketing/Product/Engineering teams.
 - Taking ownership of a project.
 - Coaching or mentoring others.

Data analyst deep dive: A report for your portfolio



How are portfolios used in the interview process?

They **provide some guarantee** that you have the skills you claim.

The hiring manager will spend **less than 5 minutes** looking at anything.

You need to **make it easy for them** to see that you have the skills they want.



Q&A

