The text is framed by a dashed white line. On the right side, a dashed arrow curves from the top right towards the center. On the bottom left, a dashed arrow curves from the bottom left towards the center. A solid white vertical line with an arrowhead at the bottom is positioned to the right of the text.

EXPANDING THE DATA TEAM: ANALYTICS ENGINEERS

Hello world!

I AM VICTORIA PEREZ MOLA

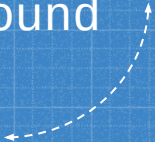
I am here because I want to share what is my role as an Analytics Engineer at Tier Mobility and why modern data teams need one.





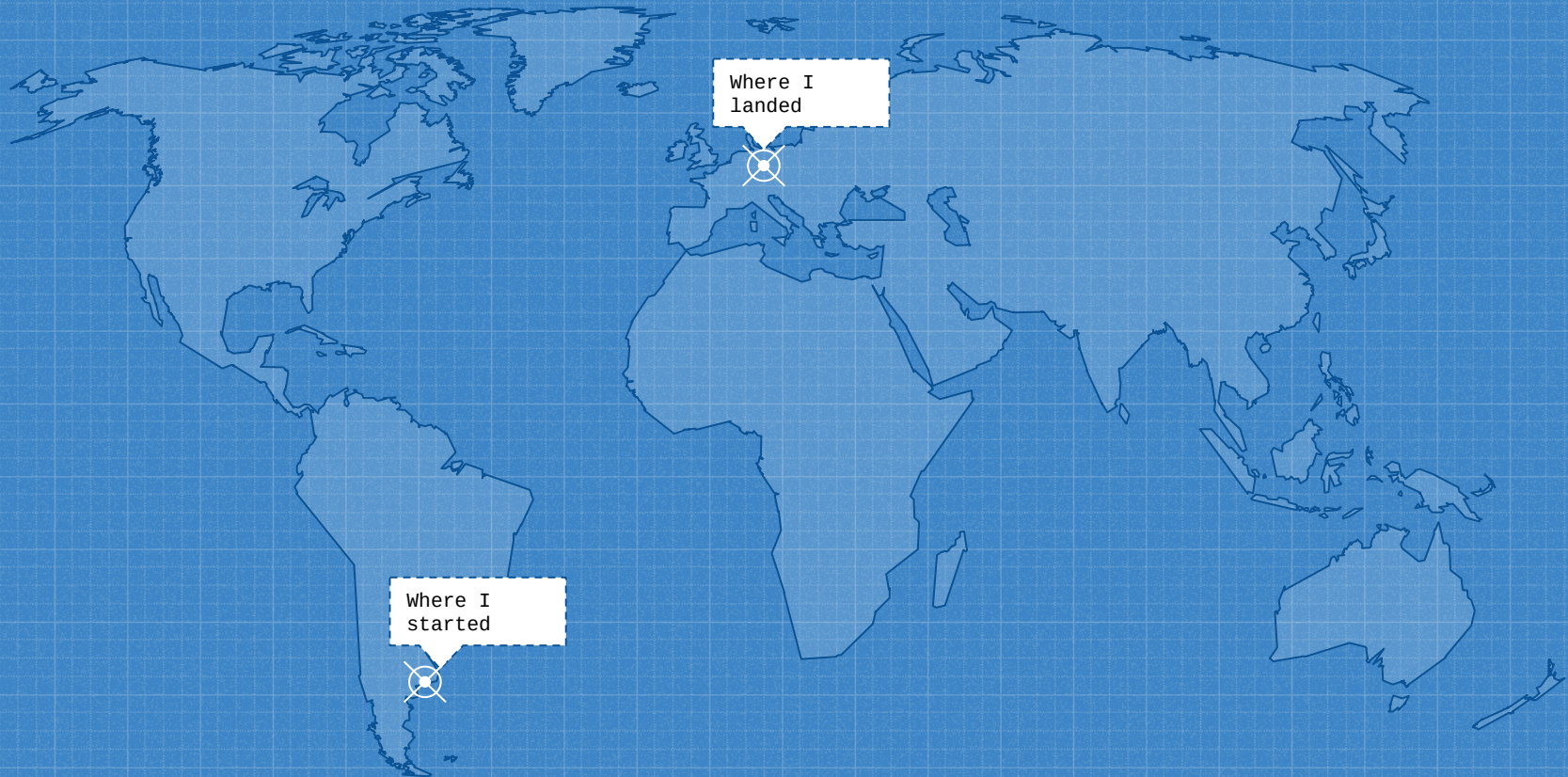
1

HOW DID I GET TO BE AN ANALYTICS ENGINEER



Let's start with some
background

MY GEOGRAPHIC JOURNEY



MY TECHNICAL JOURNEY

Started studying
Systems Engineer

2010

Finished
University

2015

Moved to Berlin &
started working as
IT systems
specialist

2018

Started working as
Analytics Engineer

2020

First job in IT as
a Technical and
functional
implementer

2014

Started working
as a consultant

2015


Changed jobs
to SQL developer

2019



2

THE ORIGINS OF THE ANALYTICS ENGINEER ROLE



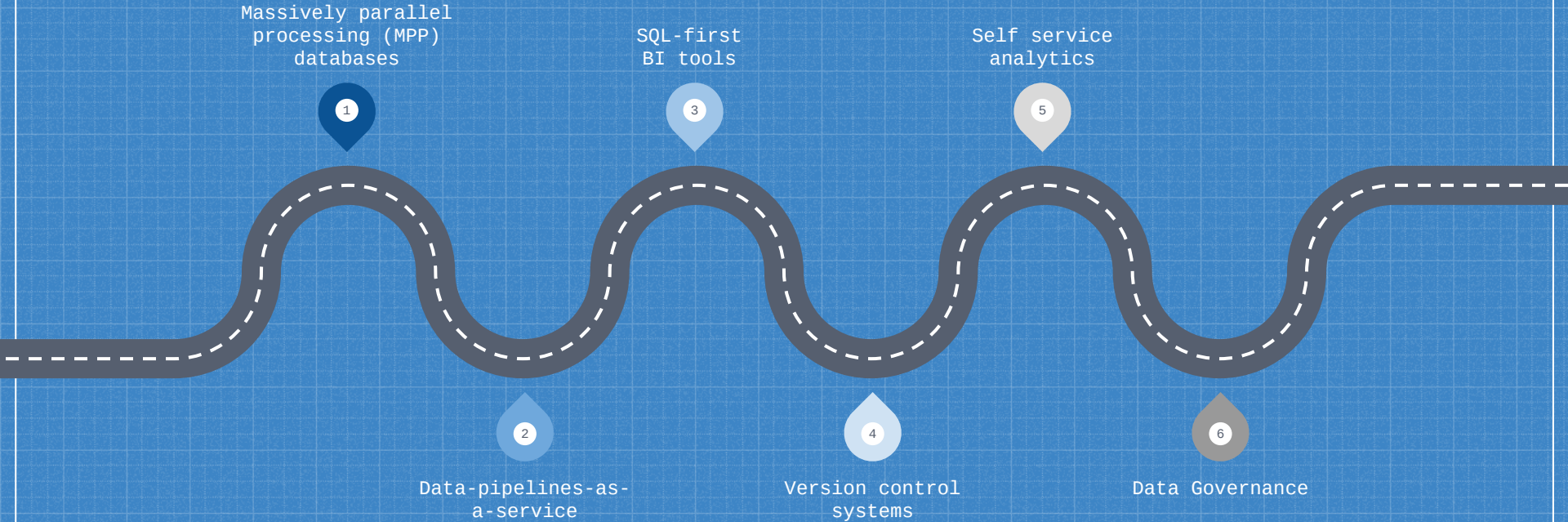
Let's dive into the
important stuff



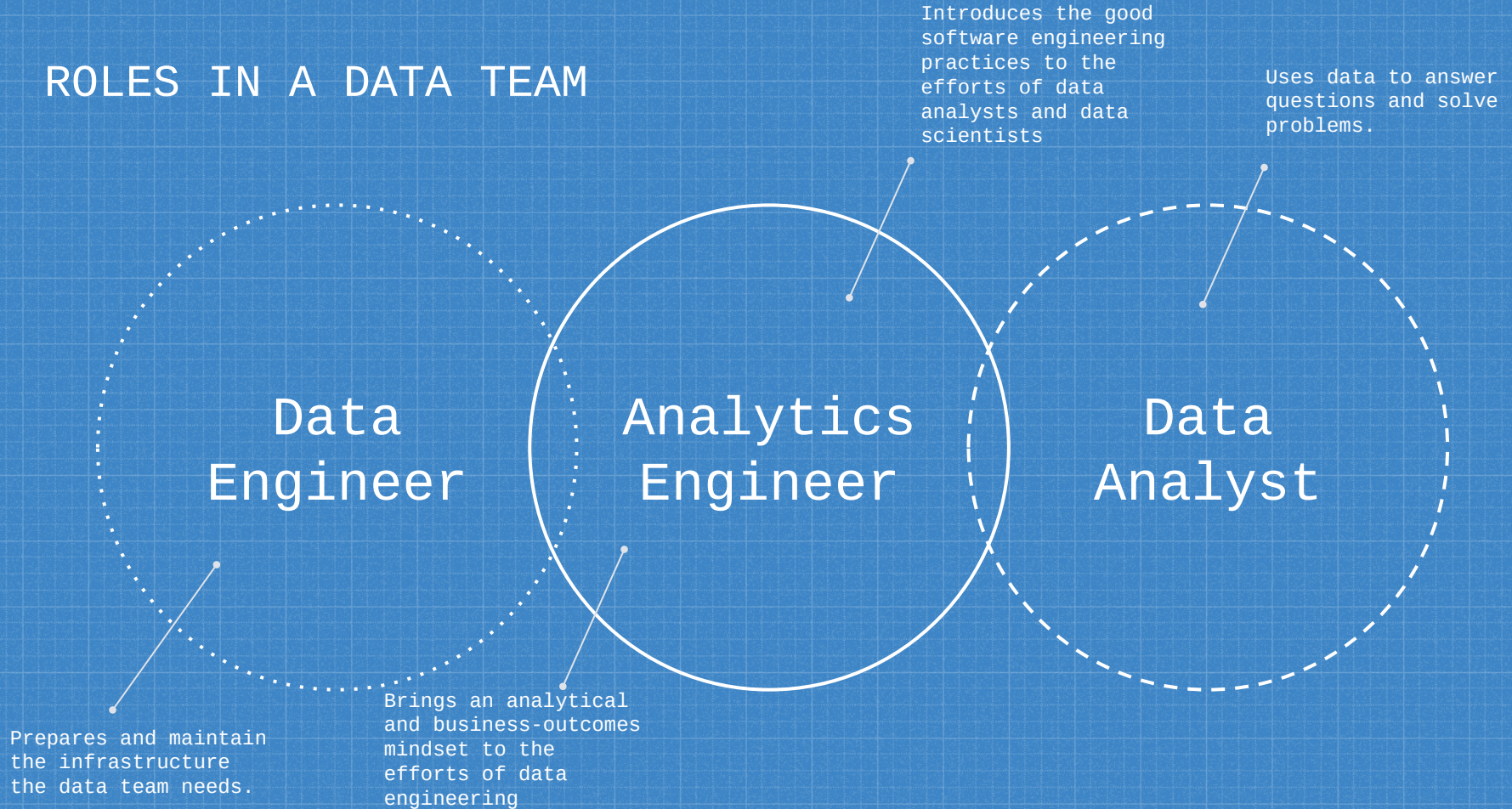


**“We are looking for an expert in
building out analytical data
layers to join the band and help
drive a data-first culture across
the ad-supported business in
Spotify”**

DATA DOMAIN DEVELOPMENTS



ROLES IN A DATA TEAM





3

THE PROFILE OF THE ANALYTICS ENGINEER



Let's get to the
interesting stuff



TOOLING

ETL tools like Fivetran, etl or Stitch

Cloud data warehouses like Snowflake, Bigquery, Redshift

Data Storing

Data loading

Data modelling

Tools like dbt or Dataform

BI tools like Looker, Mode or Tableau

Data presentation

RESPONSIBILITIES



Data Engineer

- Build custom data integrations
- Manage overall pipeline orchestration
- Develop & deploy machine learning endpoints
- Build and maintain the data platform
- Data warehouse performance optimizations

Analytics Engineer

- Provide clean, transformed data ready for analysis
- Apply software engineering best practices to analytics code (ex: version control, testing, continuous integration)
- Maintain data documentation & definitions
- Train business users on how to use data visualization tools

Data Analyst

- Deep insights work (ex: why did churn spike last month? what are the best acquisition channels?)
- Work with business users to understand data requirements
- Build critical dashboards
- Forecasting



4

HIRING ANALYTICS ENGINEERS



Finally the useful stuff

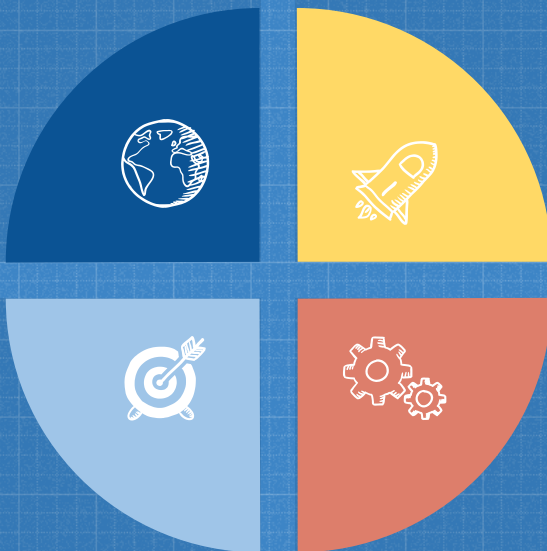
WHY HIRE ANALYTICS ENGINEERS?

BETTER DATA QUALITY

Better understanding of the business needs + software engineering practices

Apply Software engineering mindset and share knowledge across the team

HIGHER QUALITY STANDARDS



INCREASE PRODUCTIVITY

Reduce the 'barrier to entry' for data and empower data analysts

Provide engineering support, evangelize existing tools, and build new ones

IMPROVED TOOLING

THE ANALYTICS ENGINEER EXPERTISE



Databases

General understanding about relational databases and data warehousing concepts.



Data modelling

- Relational model
- Kimball's Dimensional Modelling
- Inmon data modelling
- Data Vaults



SQL

From basic queries to CTEs and window functions.



Data pipelines

ETL vs ELT



Reporting

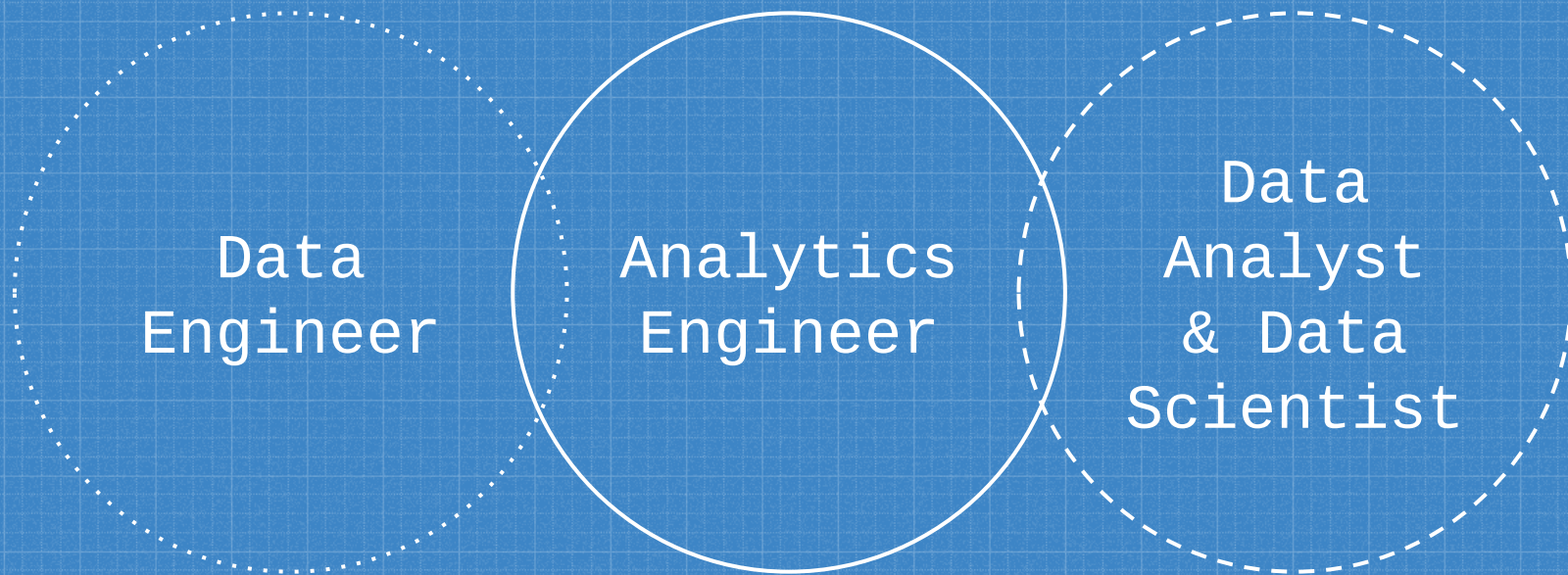
General knowledge on how to present the data using data visualisation tools.



Good practices

Software engineering best practices for code development.

WHERE TO FIND ANALYTICS ENGINEERS?



Thanks!

ANY QUESTIONS?

You can find me at:



@victoriapm



@victoriaperezmola

CREDITS

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by [SlidesCarnival](#)
- Photographs by [Unsplash](#)
- [The Analytics Engineer](#) by [Michael Kaminsky](#)
- [Analytics Engineering at Spotify](#)
- [Analytics at Netflix: Who We Are and What We Do](#)
- [What is Analytics Engineering?](#)
- [Analytics readings](#)