The Modern Data Team

Analytics Engineering & Data Science

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Insights & Growth, Spotify

What You Need To Succeed

- Master's or PhD in Computer Science, Data Science, Statistics, or a related field of study, or relevant experience. Alternatively , a Bachelor's degree with relevant practical experience.
- Minimum 2 years of experience as a Data Scientist or in a similar role .
- Experience with hypothesis or A/ B test analy ses with in-depth understanding of the statistical concepts involved.
- Hands-on experience work
latform like Databricks , Ap
- Expert in at least one prog
and SQL.
- Data storytelling skills .

We're Excited About You Because You Have...

- A degree in Math, Physics, Statistics, Economics, Computer Science, or a similar domain
- 2+ years of experience in data analytics, consulting, or related role
- Experience working with funnel optimization, user segmentation, cohort analyses, time series analyses, regression models, etc
- Expertise of SQL queries, ETL, A/B Testing, and statistical analysis (e.g. hypothesis testing, experimentation, regressions) with statistical packages, such as Matlab, R, SAS or Python

tools (e.g. Chartio, Looker, Tableau)
them in a structured, hypothesis-

Background

- 7+ years of experience in a data science role. Ideally a founding data scientist or lead analyst at a hyper growth product or research company.
- While you are not a software engineer you are comfortable building and maintaining a modern data stack
- Push to define and implement metrics
- Push to design and analyze experiments with clear insights and recommendations
- You are a self-starter who gets the job done
- Have superb communication skills with the ability to communicate cross functionality
- You have outstanding interpersonal skills and can build great relationships
- You have a sense of humor

- Comfortable with Python
- Experience with Snowflake (especia
- Experience as one of the first data s
- Data engineering and/or analytics e
- ML experience

scientist or related role

- Have experience with the following areas: product marketing, paid acquisition, SEO, social and/or lifecycle marketing
- Are proficient in SQL and experienced with BI and visualization tools (e.g., Omni, Mode, Hex, Looker)
- Have experience designing, implementing, and analyzing A/B tests
- Take ownership and are a self-started who thrives with open-ended problems
- Have experience with data modeling (e.g., dbt, Airflow)

So you could be a

- Data Scientis
- Data Analyst
- Business Ana
- Business Inte
  Analyst
- Analytics Eng
- Business Eng

and you could be doing

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- ve modeling
- cal Analyses
- Causal Inference

Let's Marie Kondo this

Analytics Engineering

Automation

dbt

Scala

Product Analyst

Experimentation

Instrumentation

User Segmentation

Engineering ⟷ **Business**

Predictive Analytics

Causal Inference

RecSys

Machine Learning Eng

Dashboarding

Reporting

Forecasting

Business Analyst

Let's Marie Kondo this

Who am I?

Automation

dbt

Scala

Spotify
2021

Spotify
2022 -

Experimentation

Instrumentation

User Segmentation

Engineering

Business

Spotify
2019

Predictive Analytics

Causal Inference

RecSys

Justworks
2018

Justworks
2017

Dashboarding

Reporting

Spreadsheets

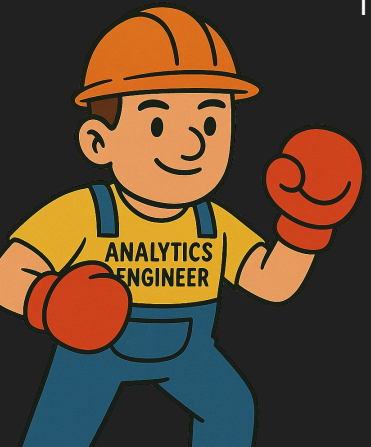
✨ The Modern Data World ✨

Engineering ⟷ **Business**

Analytics Engineers ⟷ **Data Scientists**

The **architect**, the **builder**, the one who makes data **usable and accessible**

The **explorer**, the **experimenter**, the one who **answers business questions**



Analytics Engineers

Technical Skills

- **SQL:** From a reliability, integrity and optimization perspective
- **Data Modeling:** Know how the data is built, inside and out
- **Version Control & CICD:** Masters of engineering best practices
- **Automation:** Workflow orchestration, task automation
- **Semantic Layers:** The connection between data to business stakeholders

People Skills

- **Problem Solving:** Relentless curiosity for fixing complex data challenges and architecting elegant solutions
- **Focus & Autonomy:** Ability to thrive during long periods of deep, independent work
- **Reliability:** Delivering high-quality, repeatable solutions that others can depend on
- **Communication:** Sync and async collaboration with engineers, analysts, and business partners.

Data Scientists / Analysts

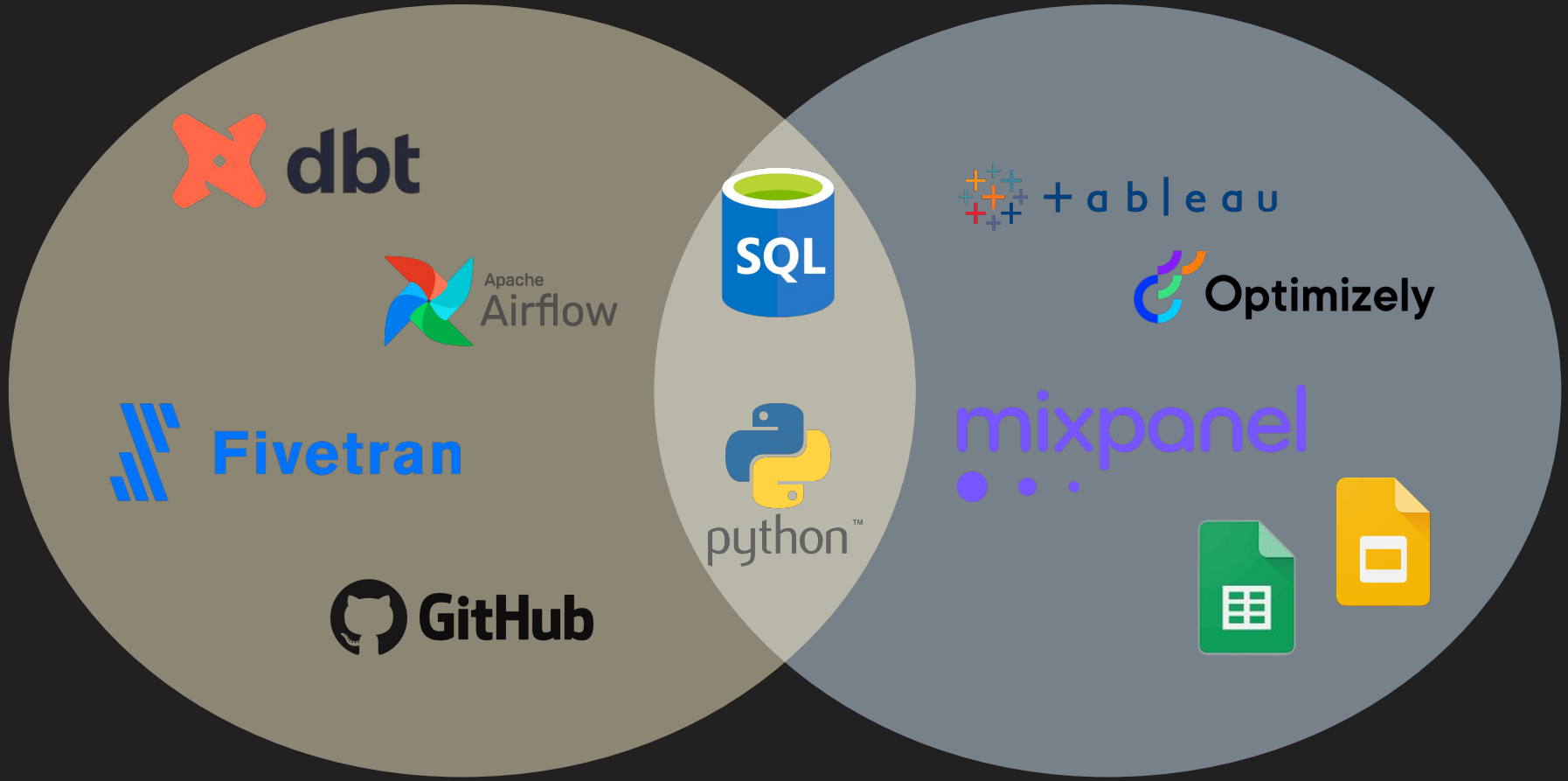
Technical Skills

- **Python & SQL:** For advanced analysis, modeling
- **Statistics:** Designing experiments and interpreting results
- **Visualization:** Clear, compelling charts and dashboards
- **Reporting:** Translate data into compelling narratives and recommendations

People Skills

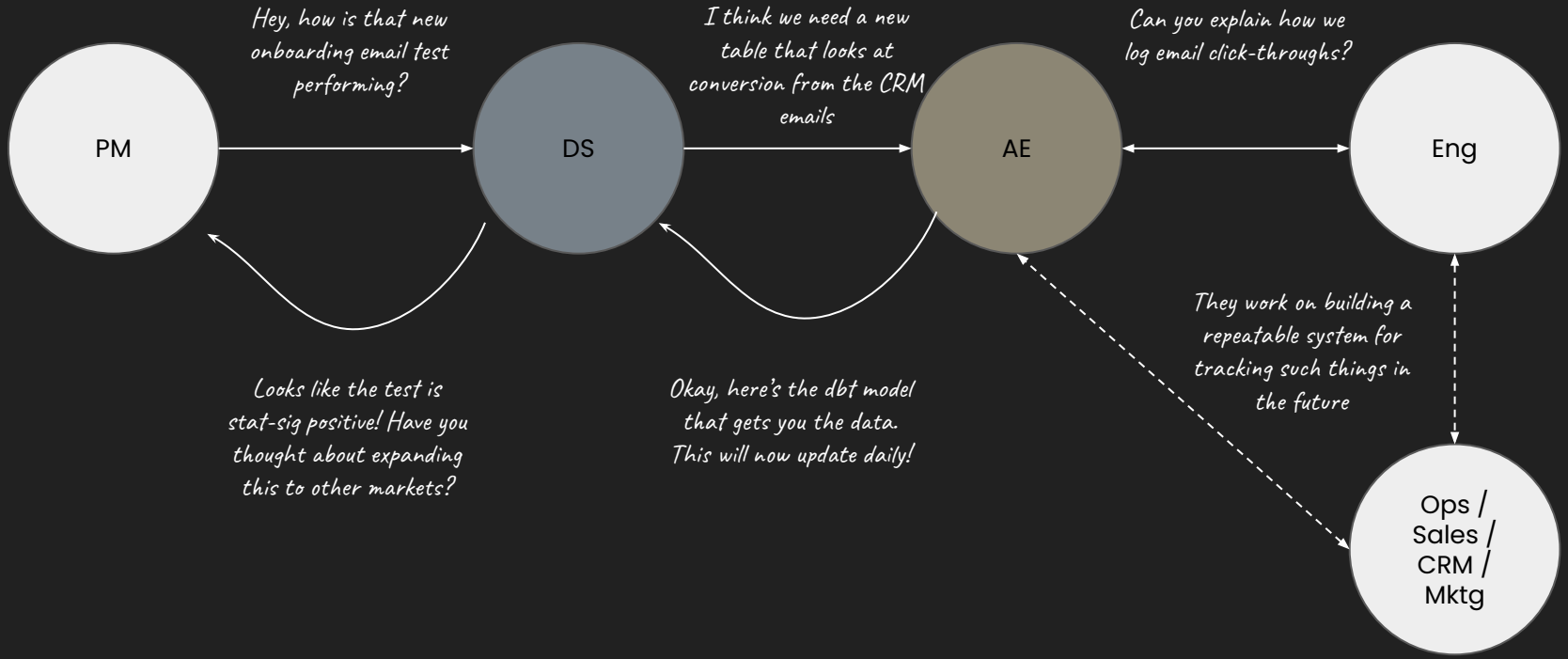
- **Curiosity:** Every dip in a chart is worth investigating
- **Collaboration:** Partnering closely with stakeholders to drive results
- **Adaptability:** Shifting focus as questions and priorities evolve
- **Storytelling:** Crafting compelling narratives that drive decisions

Example Toolkit



Engineering ⟷ Business

An extremely simplified example



What excites you more?

How can I make business decision making more efficient and self-service?

v/s

What is the the biggest opportunity to improve our business?

AI: The next era

Automated, documented data pipelines to make reliable, actionable **data accessible for everyone**.

Semantic Layer

Has **all the context it needs**: relationships between datasets, how metrics are set, and tables to query

Stakeholders are self-service, **AI can write SQL** for them for basic questions and reporting

*a very happy PM

Rapid AI adoption will mean everyone is an Analyst

.....but when everyone is an Analyst, what do Analysts do?

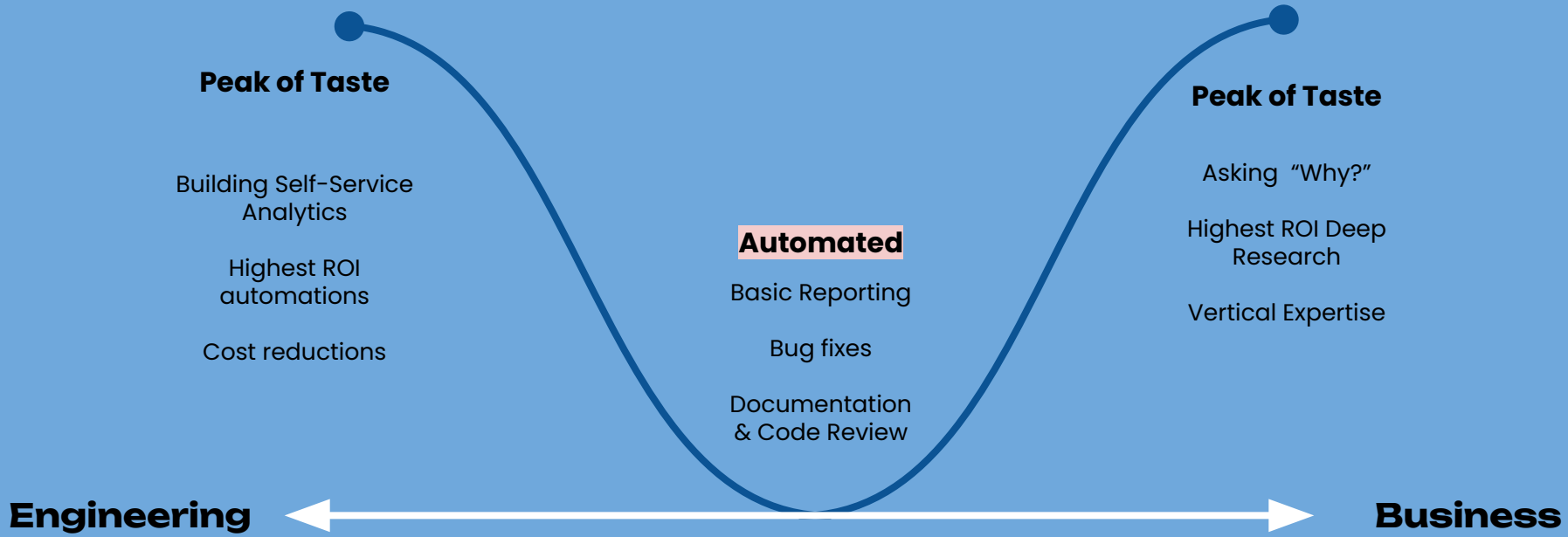
“In a world of scarcity, we treasure tools.

In a world of abundance, we treasure taste.”

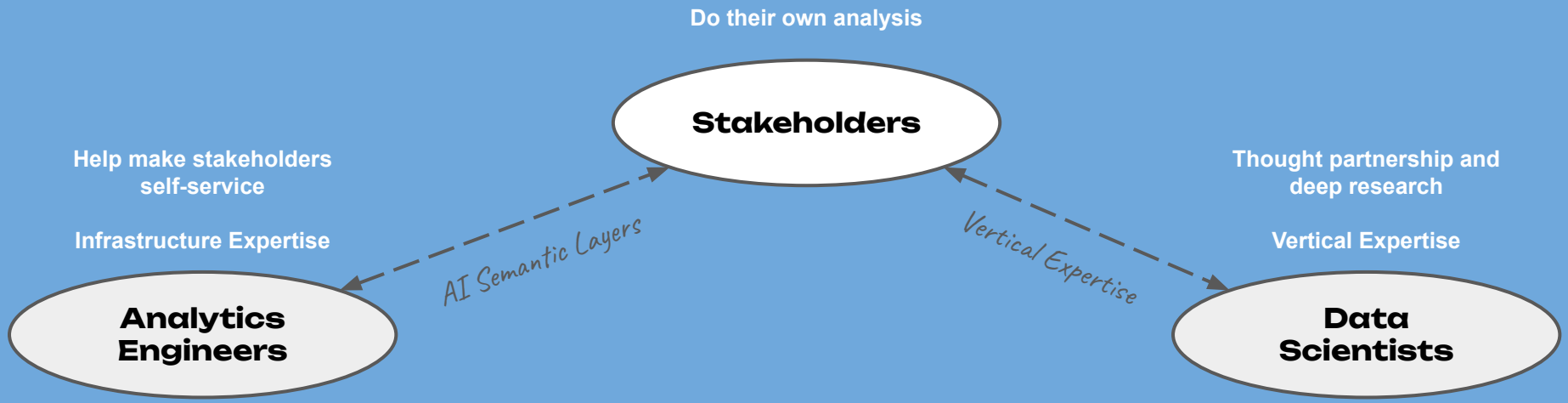
– Anu Atluru, Taste is Eating Silicon Valley

Taste

What separates Human and AI



✨ The AI Data World ✨



3 tips to succeed in both roles

The 10% Rule

- Trust = thought partnership
- Any time you're answering a question, think about the extra 10%
- *"Here's what you asked for, I also looked at it this way out of curiosity and wondering if this changes your outlook?".*

Curiosity and objectivity

- The data person in the room should be the one who asks the most questions
- "Data is the currency of decision-making"
- We should also always be opinionated, with data-backed evidence

Calculating ROI

- Always ask "how did this report / dashboard impact your work or the business?"
- Allocate time on higher ROI tasks
- Set KPIs for your data team or for yourself

Thank you!

Disclaimer: The AI world is changing every month, my thoughts are only “hot takes”

Developing taste

✅

SELF-SERVICE ANALYTICS

HIGHEST ROI AUTOMATIONS

COST SAVING

❌

PULLING AD-HOC DATA

BUILDING REPORTS

ANSWERING *"WHAT?"*

✅

ANSWERING *"WHY?"*

HIGHEST ROI DEEP RESEARCH

THOUGHT PARTNERSHIP

Analytics Engineers: The People

Common Questions

- Is it possible to build a single table that allows us to answer this entire set of business questions?
- What is the clearest possible naming convention for tables in our warehouse?
- What if I could be notified of a problem in the data before a business user finds a broken chart in Looker?
- What do analysts or other business users need to understand about this table to be able to quickly use it?

Data Scientists

Analytics Engineers: Builders

- Know how the data is built, inside and out
- Masters of engineering best practices
- Love reliable, repeatable, efficient code
- Thrive on autonomy and deep focus
- Prefer long, uninterrupted development cycles
- Meetings and quick asks = distractions

Data Scientists: Explorers

- Masters at using data to answer “why?”
- Understand DS best practices inside and out
- Love exploring with curiosity and driving compelling narratives
- Live for collaboration with stakeholders and decision-makers
- Thrive on seeing the impact of their work
- Too much isolation? Job satisfaction takes a hit

Do we need two separate job families?

An Analytics Engineer operates similar to an Engineer.

They prefer autonomy and the focus time to work on their tasks, which have a generally longer development cycle.

Meetings with stakeholders and quick data asks are more often distractions and would impact their ability to succeed and their job satisfaction.

A Data Scientist is closer to a traditional Analyst, or even a Consultant.

They prefer working closely with stakeholders, and being a partner in decision making.

A long period of time without stakeholder interaction or long-periods of time without seeing the impact of their work, would negatively affect their job satisfaction.

Everyone is somewhere on this spectrum
(and can move!)