

Technical Strategy Power Chords

Patrick Shields

About me

Patrick Shields

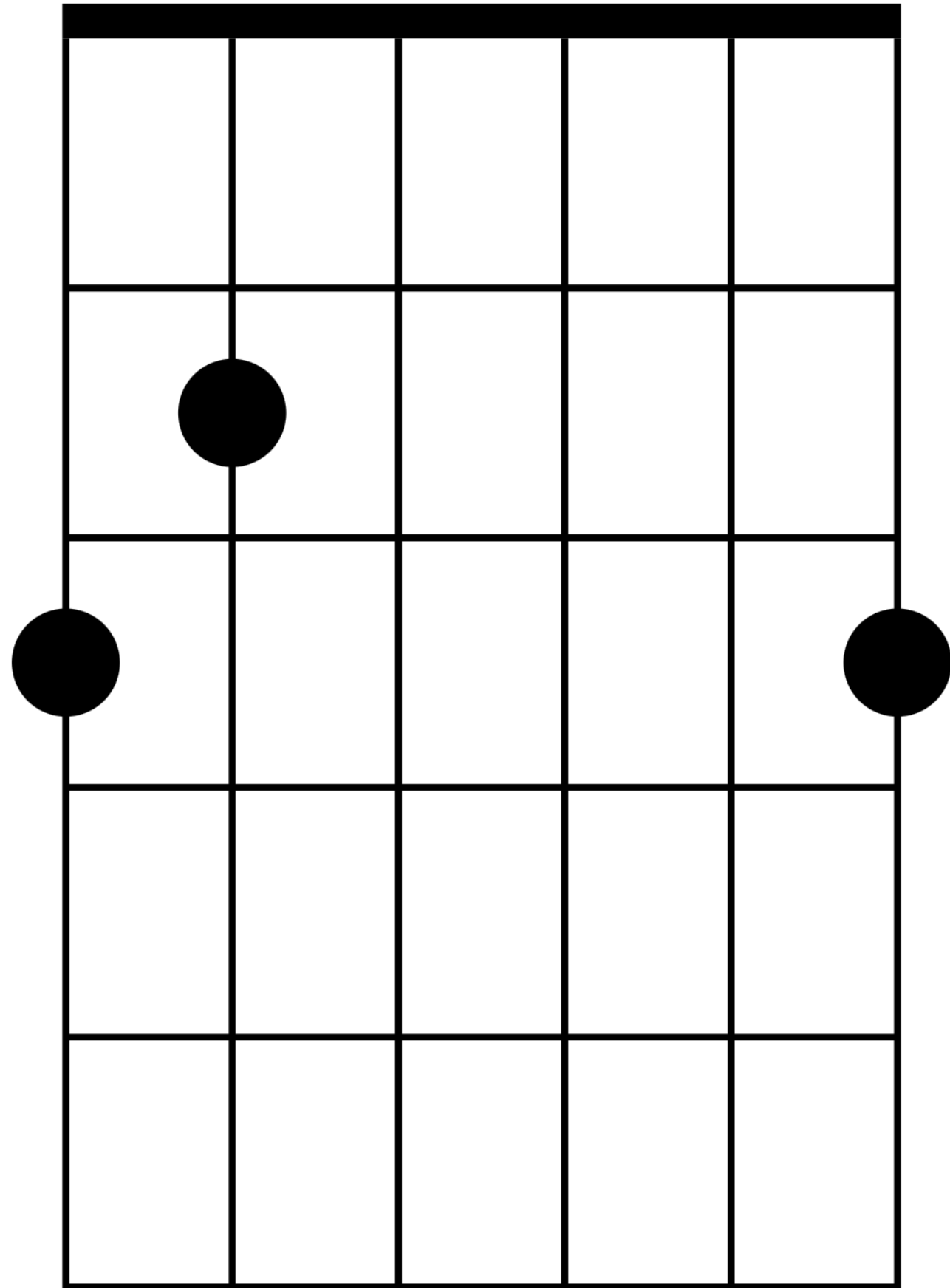
- Writing software professionally for 14 years
- Currently Chief Architect @ CircleCI, a smattering of companies big and small
- Mediocre guitar player for 24 years, aspiring cook for 6



**Power chords are a simple shape
you can move all over the neck**

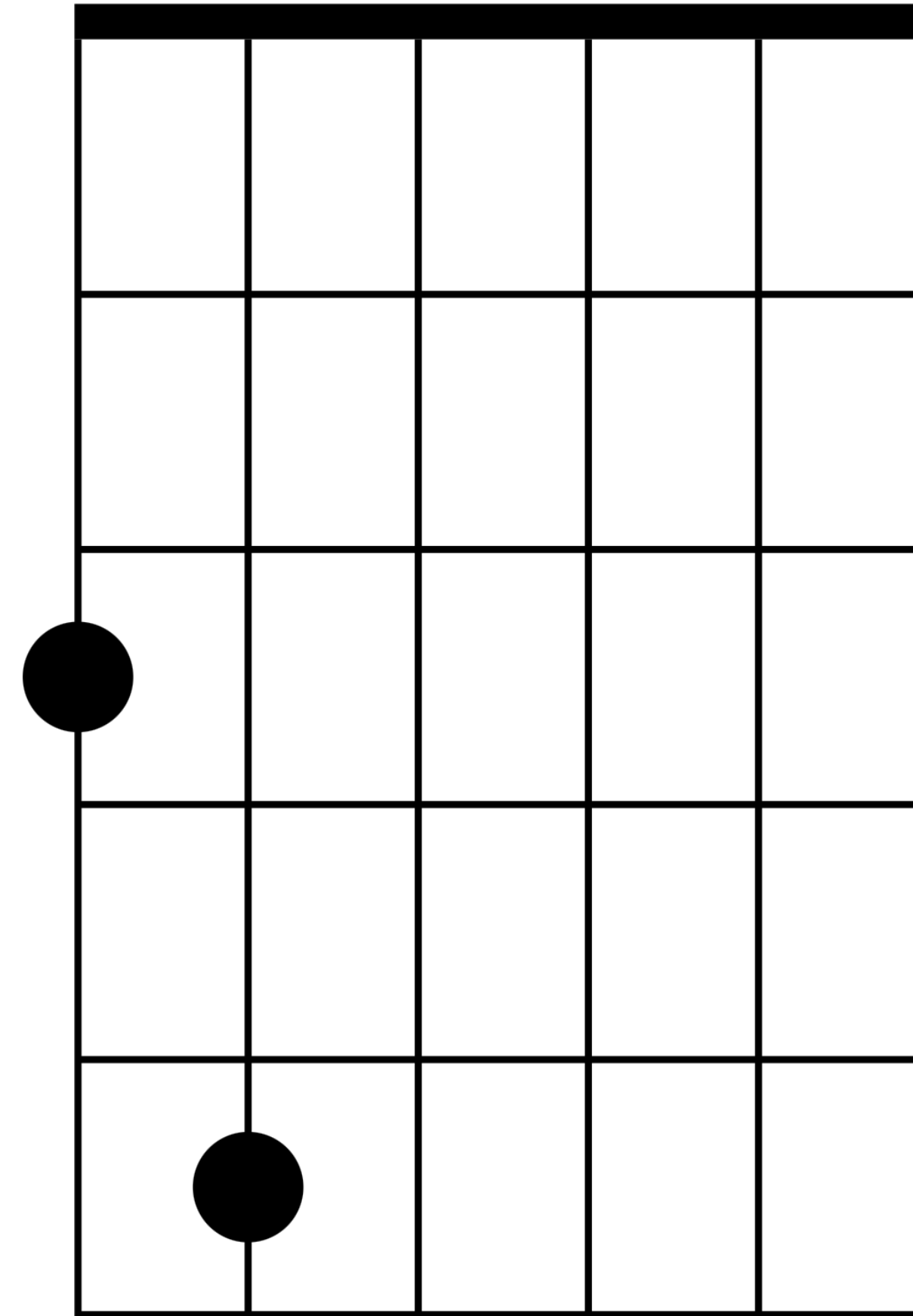
G Chord

○ ○ ○



G Power Chord

× × × ×



Music evokes an emotion in the people listening to it.

Power chords unlock that for beginners.

**Technical strategy power chords
create clarity and confidence.**

I - IV - V



Pick one (and only one) goal

Pick one (and only one) goal

Examples

- *Lower error rates during deploys to less than 1%*
- *Run database migrations using an automated pipeline*
- *Increase event processor throughput to 500 events per second*

**The approach is multifaceted,
but the outcome is not**

Increase event processor throughput to 500 events per second

to

Increase event processor throughput to 500 events per second while maintaining latency of less than 100 ms per event

**List the facts that would change
your mind**

List the facts that would change your mind

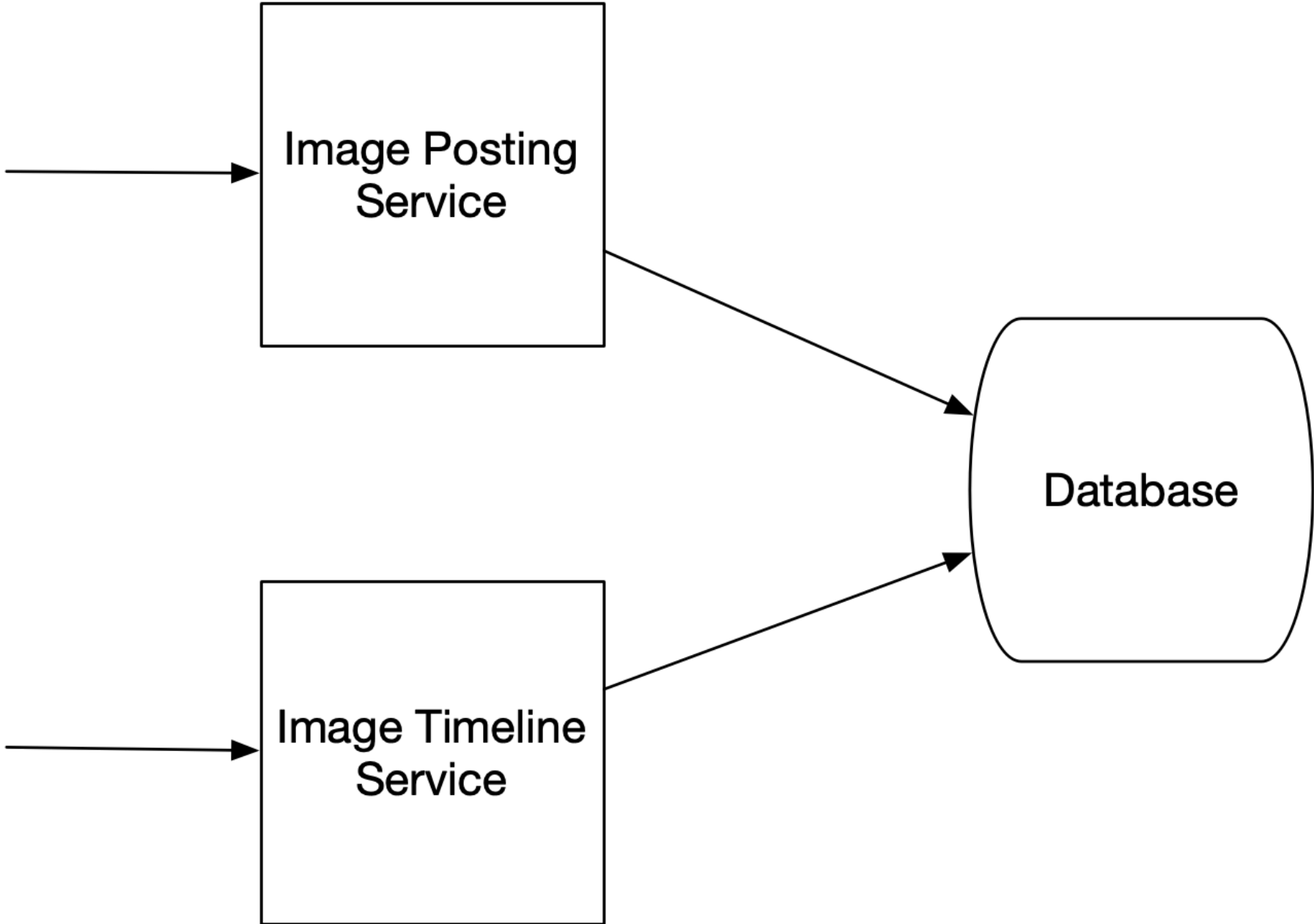
An Example

- Problem: A downstream system is consistently getting overloaded leading to missed SLOs on our side
- Plan: Move to asynchronous processing model backed by a queue, throttle processing based on downstream availability
- What might change your mind
 - Deadlines e.g. purchase @ quote
 - Timeliness e.g. backordered item less sensitive to delay than in stock
 - Throughput is at edge **or is heterogeneously capped**

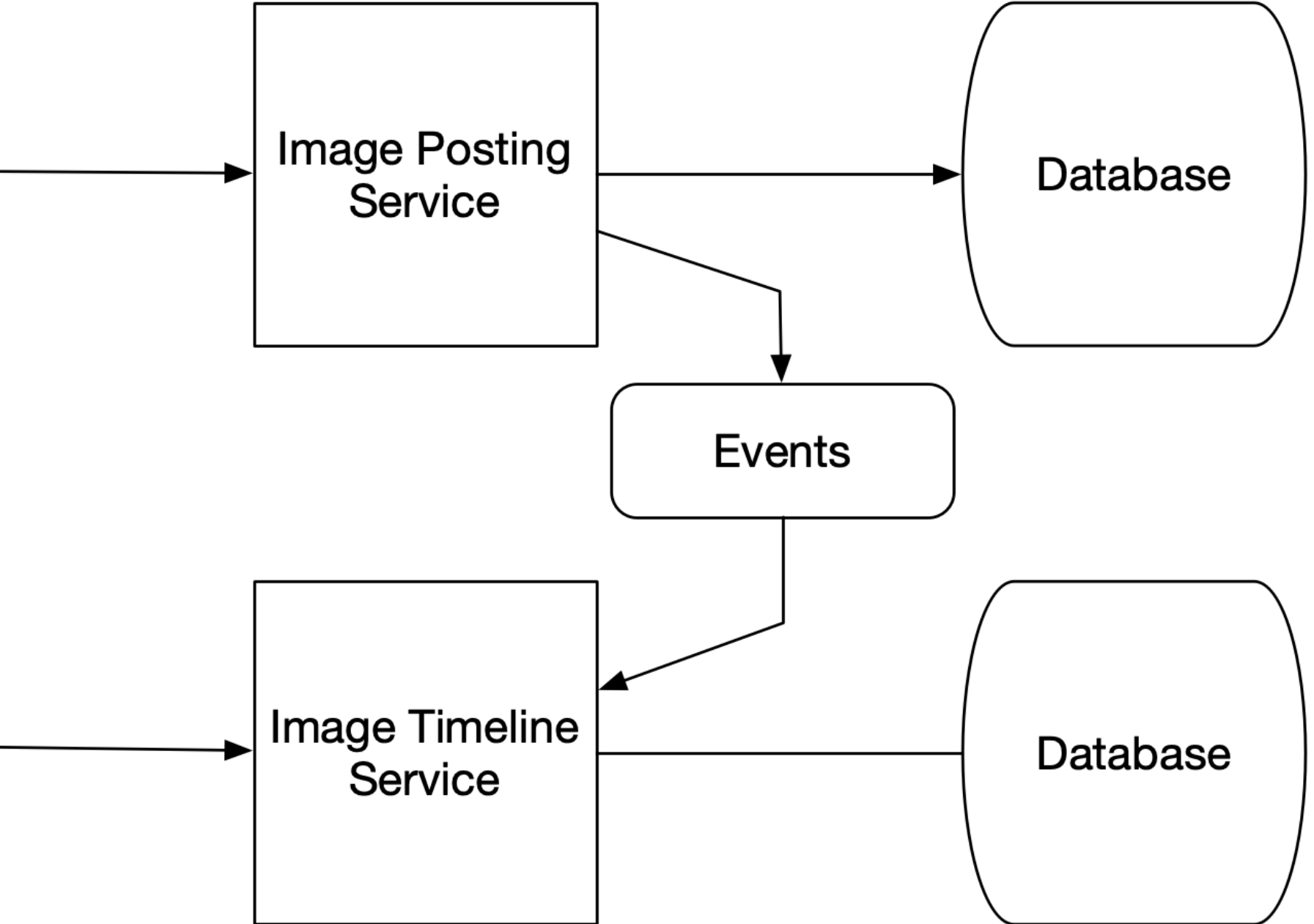
**Solve only the hard problems you
absolutely need to**

Work backwards

Start



End

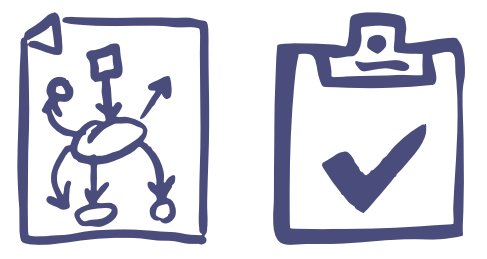
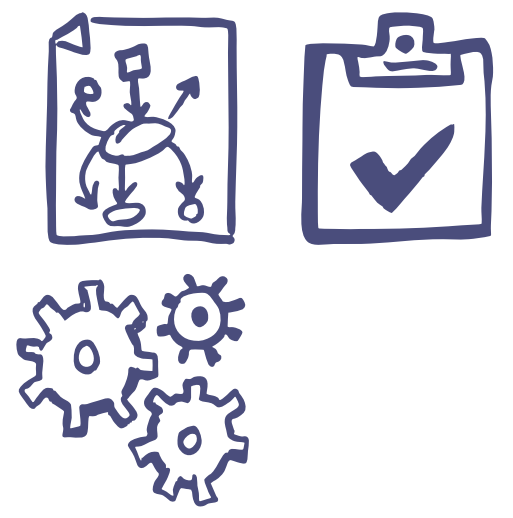
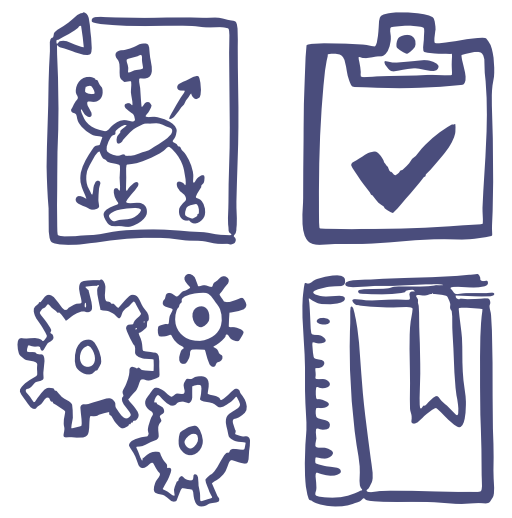


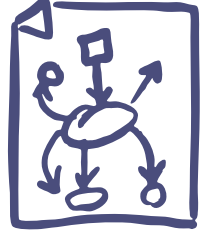
Start



End





 Drawings

 Outcomes

 Interfaces

 Backlog

A parting thought... start small

Thanks

<https://patshields.net>

Pick one (and only one) goal

Prompts

- What is your one goal?
- How will you help others understand that goal?
- How will you determine whether you've met your goal?

List the facts that would change your mind

Prompts

- What are the key assumptions driving complexity?
- What facts would change those assumptions?
- Is meeting those assumptions key to hitting your goal?

Work backwards

Prompts

- What are the major milestones in the execution of the strategy?
- How will you build awareness of those milestones and their completion?
- What are the key risks that could make this strategy ineffective at meeting your goal?

Photo Credits

Joan Jett by Masao Nakagmai (CC BY-SA 2.0) - https://www.flickr.com/photos/goro_memo/3724237952/in/album-72157594190850695/

Soup Ingredients by Tonda Tran - <https://pixabay.com/photos/chicken-ingredients-soup-vietnamese-5921484/>

Pho - <https://pixabay.com/photos/food-noodles-soup-pho-salad-1246621/>