How to teach an old dev new tech

Learning **React** as a senior developer

@trentmwillis | #ReactConfAU

(expect lots of doggos)

About 9 months ago...

```
mkdir app_v2
```

```
git commit -m "lead dev = me"
```

```
npm install old-tech-stack
```

```
git commit -m "y u no work?!"
```

🚫 Testing Story

🚫 Reliable Patterns

🚫 Community Solutions

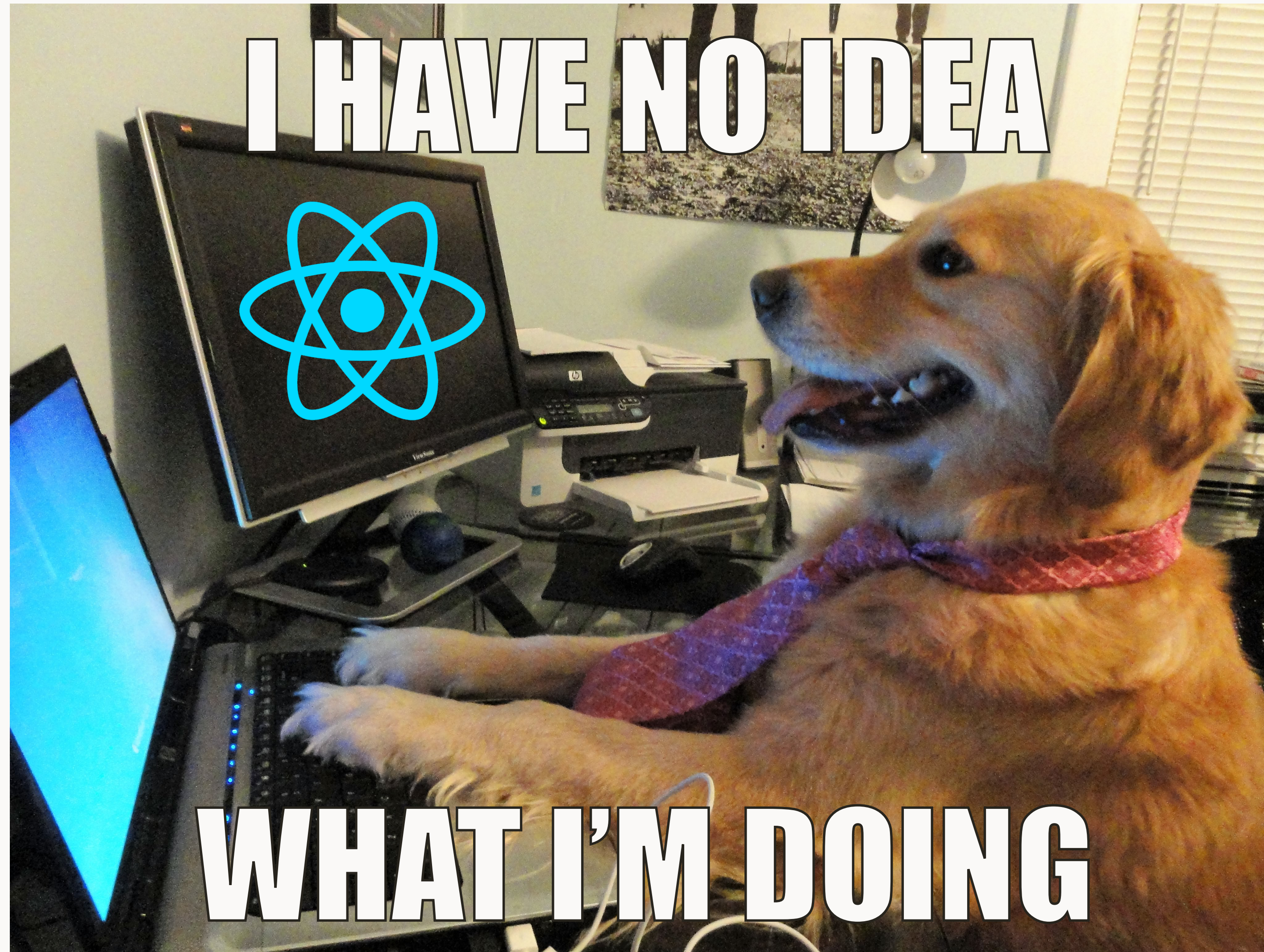Fight the Familiar   Embrace the New

Embrace the New

React
Redux
TypeScript

"I don't know React...or Redux...or TypeScript."

*–Me (the **lead** developer), ~9 months ago*

–Me (the **lead** developer), ~9 months ago

Fast-forward 9 months...

😄 Positive Feedback For The App

😄 Smooth Development

😄 And...

"I know **and enjoy** React."

–Me, now

Why was our journey **successful***?*

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What do you mean by *"**old**"*?

✅ Comfortable With **A Tech Stack**

✅ Working Primarily In **That Tech Stack**

✅ Doing **The Above** For *A While*™

An "Old Dev" is a dev that is
solidly in their comfort zone
(and has been for a while)

The **comfort zone**
can bias you towards
not learning

Good Reasons For Staying In The Comfort Zone

✅ Quicker progress at start of project

✅ Can foresee possible pitfalls/issues

✅ Existing tools and knowledge base

The **comfort zone** is *not* inherently bad

The Comfort Zone Becomes **Bad** When You...

🚫 Don't trust others' experiences

🚫 Are afraid to fail in front of your team

🚫 Want to remain the resident "expert"

The **comfort zone** is **bad** when it does not **celebrate learning**

How do we create a culture to **celebrate learning***?*

*Why do we **learn** anything?*

Two types of motivation

Two types of motivation

Extrinsic

Intrinsic

Two types of motivation

Extrinsic

One type of motivation does **not** *necessarily* produce better results

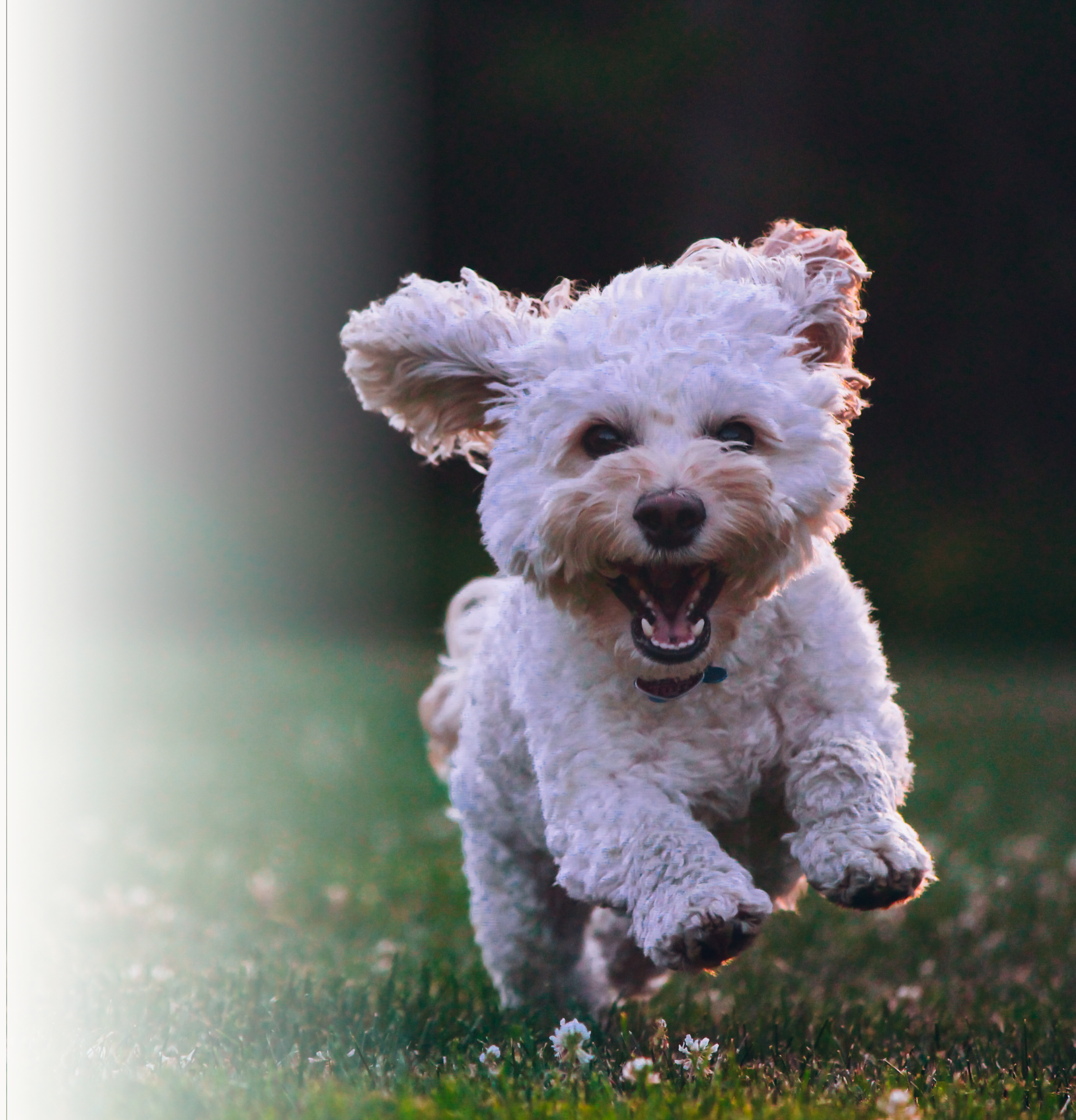**Intrinsic** motivation is *more likely* to produce better results

I *wanted* to learn React
&
I *needed* to learn React

"A decrease in intrinsic motivation when external rewards are offered regardless of outcome."

Overjustification Effect

Understanding motivation let's us create environments where **success is likely**

Motivations *can* change

(Unlike data in Redux 😉)

Extrinsic $\longrightarrow$ Intrinsic

Extrinsic ⟵ Intrinsic

Foster **positive** and **supportive** motivations for learning

(and everything else)

How do we create a culture that
celebrates learning*?*

Start by being **honest**

(Admit when you don't know something!)

"You should already know that."

"You should already know that."

vs.

"I'm not sure, let's figure it out **together**."

Ability To Learn > Already Knowing

(This is empowering!)

Build **empathy** about learning

You can't *unlearn* something...

Listen to those learning it
for the first time

Listen and **act** to create positive experiences

Try learning a **new** complex skill

(To remind yourself what it's like)

Learning a **new**
technology is
like climbing a
mountain

Build up **others**

Encourage
exploration
of interests

Encourage **exploration** of interests

WA

Play to their **strengths** and knowledge

(And make sure you recognize them!)

Actually **Celebrate**!

Actually **Celebrate**!

How do we *learn effectively*?

Research the
scope of what
you need to learn

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Build-up knowledge in
well-defined increments

Pick your projects/tickets/issues **purposefully to learn new skills**

Take **breaks**

(Plural, meaning more than one)

Don't underestimate the **power of rest**

Get your **sleep**

(Seriously, it's like magic)

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Be **gentle**
to yourself

The journey is long;
don't burn out

The comfort zone is not inherently bad

(It becomes bad when it doesn't celebrate learning)

Foster positive motivations for learning

(Be honest, show empathy, and build up others)

Make your learning more effective

(Make a purposeful plan and take care of yourself)

What is **your** takeaway?

Start by being **honest**

Start by being **a dev that celebrates learning**