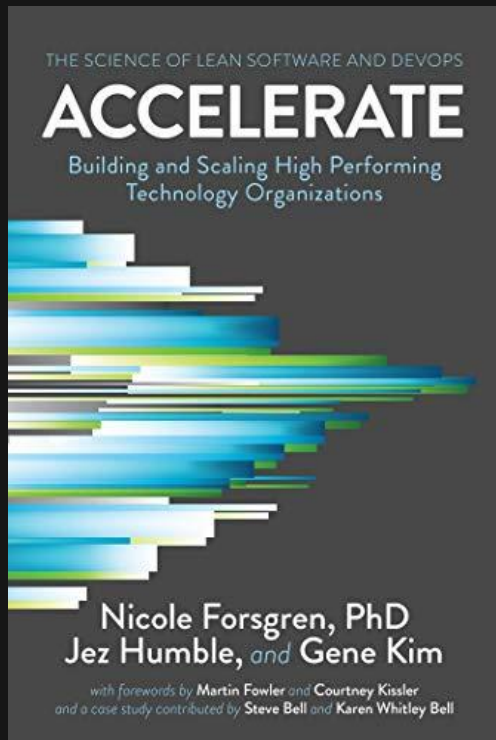# Are you neglecting your Release Pipeline?

Strange Loop 2019 Lightning Talk

@glenathan

Continuous Delivery is great

Short cycle times are great

These are not trade-offs

It's all upside

According to science!

If a developer is paid an $80k salary and works 40hr/wk

That's approx 70 cents a minute

On CircleCI a standard build minute costs ~0.6 cents

2 orders of magnitude cheaper

Waiting Sucks

Wasted time does not *feel* valuable

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Treat your CI as a spare computer

Trunk Based Development predicts strong performance

But you don't need to run your *whole* suite before pushing

The key factor is short-lived branches (days at most)

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How I learned to stop worrying and love failed builds

https://circleci.com/blog/how-i-learned-to-stop-worrying-and-love-red-builds/

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Care

Consider setting a time budget

How long are you willing to wait?

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Computers

Hardware is cheap

Can we throw hardware at it and get time back?

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Carve up your pipeline

Build
Format
Lint
Test
Package
Deploy

Build ———————— Package —— Deploy
Format
Lint
Unit Test
Integration Test

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Parallelize Test Suites

Run N identical copies of the testing job

Each shard picks a disjoint subset of the test suite

Tools exist to use previous test timings to make this fair

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Cache things

Dependency downloads

Tooling installations

Docker build layers

Docker base image

Compiler output

Git clone

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Optimize

Are there tests or tasks we could simply not do?

Can we use version control data to skip steps

Can we move tests to lower, faster layers

Can we optimise the tests themselves

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