

Happy DAGs + Happy Teammates

How a little CI/CD can go a long way

Leah Cole

May 24, 2022



@leahecole

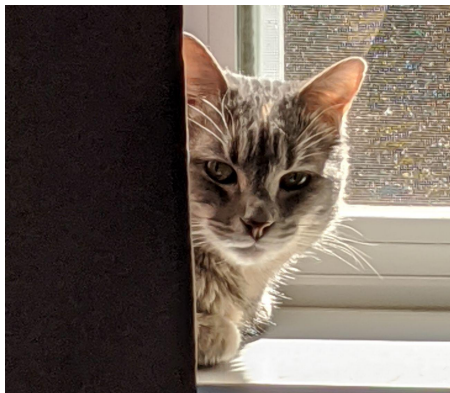
Hi! I'm Leah.



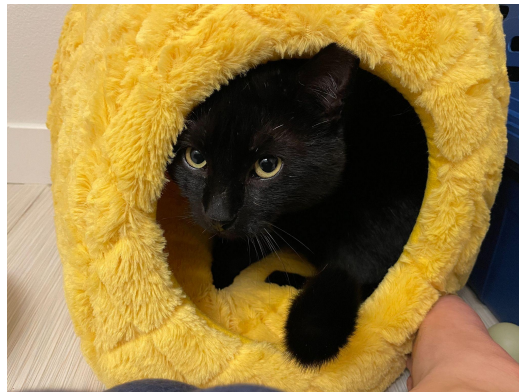
Leah Cole

Google Cloud Developer Relations
Engineer

- Developer Relations Engineer
- Cloud Composer
- Airflow Committer
- Fun fact: I love yarn crafts and cats!



Millie



Frank



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**Have you
ever...**

**... had a DAG that works locally
but not when deployed?**

**... lost track of what you have and
haven't tried to make your DAG
work?**

**... seen the big red "Broken DAG"
error?**

**... realized you forgot to deploy
changes you made in your DAG to
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01

Potential fix: Multiple Airflow environments

Multiple Airflow Environments



Local



Dev



Prod



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02

Potential fix:
Use version control

Use version control

Solo flow

- Make a commit with a detailed message
- Push to your branch

Team flow

- Make a commit with a detailed message
- Push to your branch
- Open a pull request
- Have a teammate review
- Merge in changes

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03

Potential fix: Test your DAGs

Test your DAGs

- **Airflow CLI**
- **Unit tests**
- **Local tests**
- **Running in Dev environment**

Resources:

- [Testing DAGs Composer](#)
- [Community contributions to Airflow test guide](#)
- [Airflow testing best practices](#)
- [2020 Airflow Summit Talk](#)
- [GoDataDriven blog post \(2019\)](#)
- [Astronomer testing Airflow guide](#)



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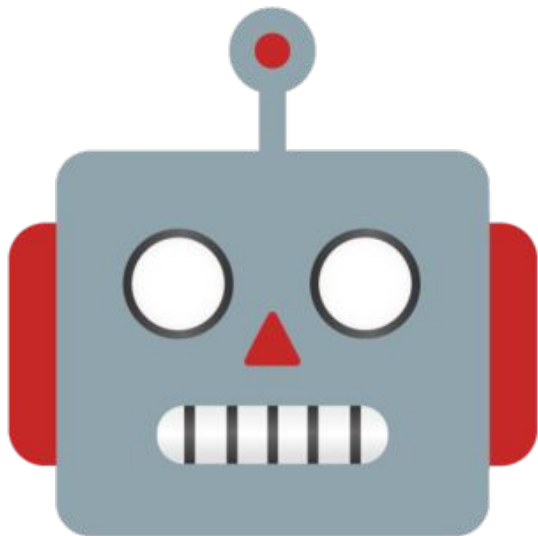
04

Potential fix: Automate

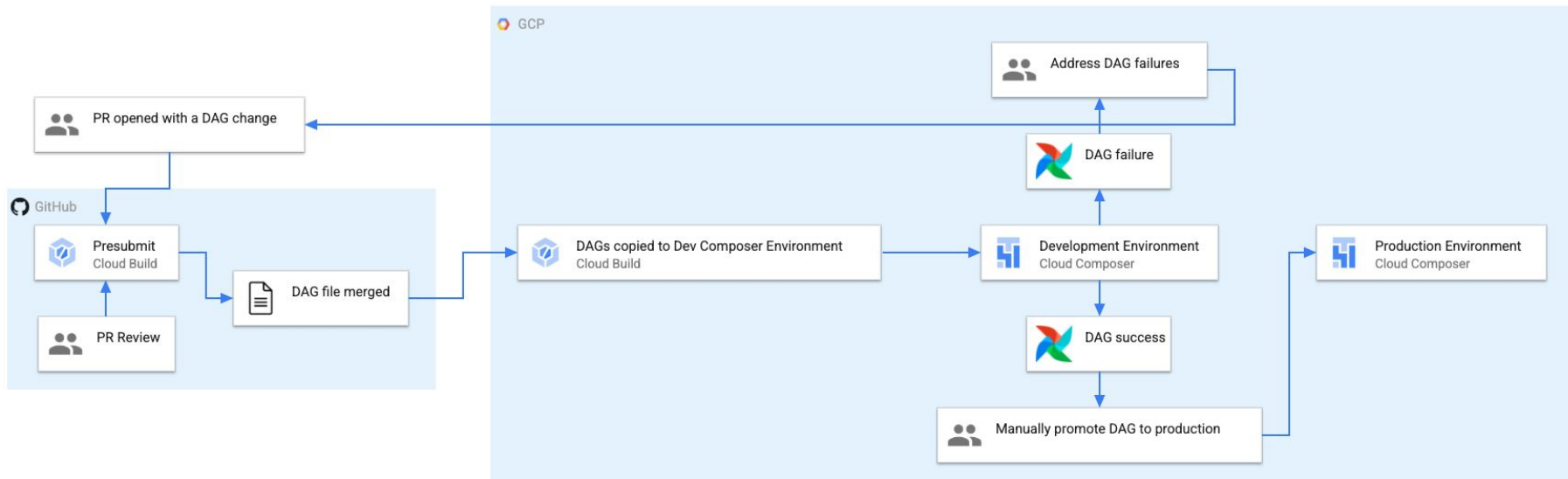


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Automate

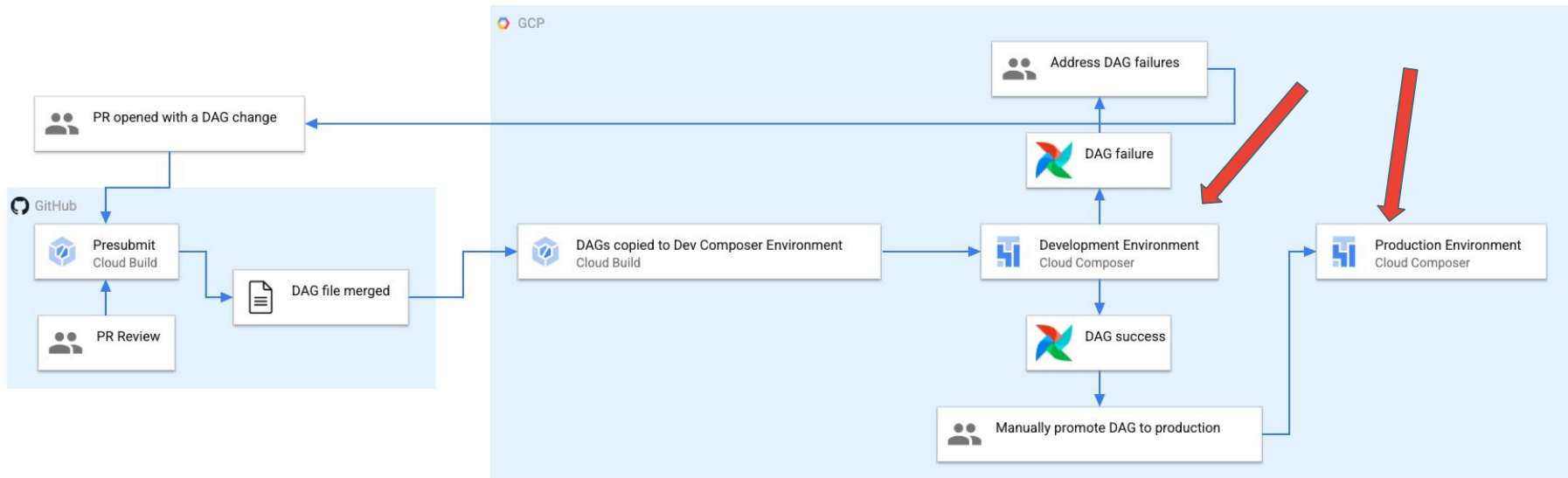


Use CI/CD to Keep DAGs in sync with Version Control



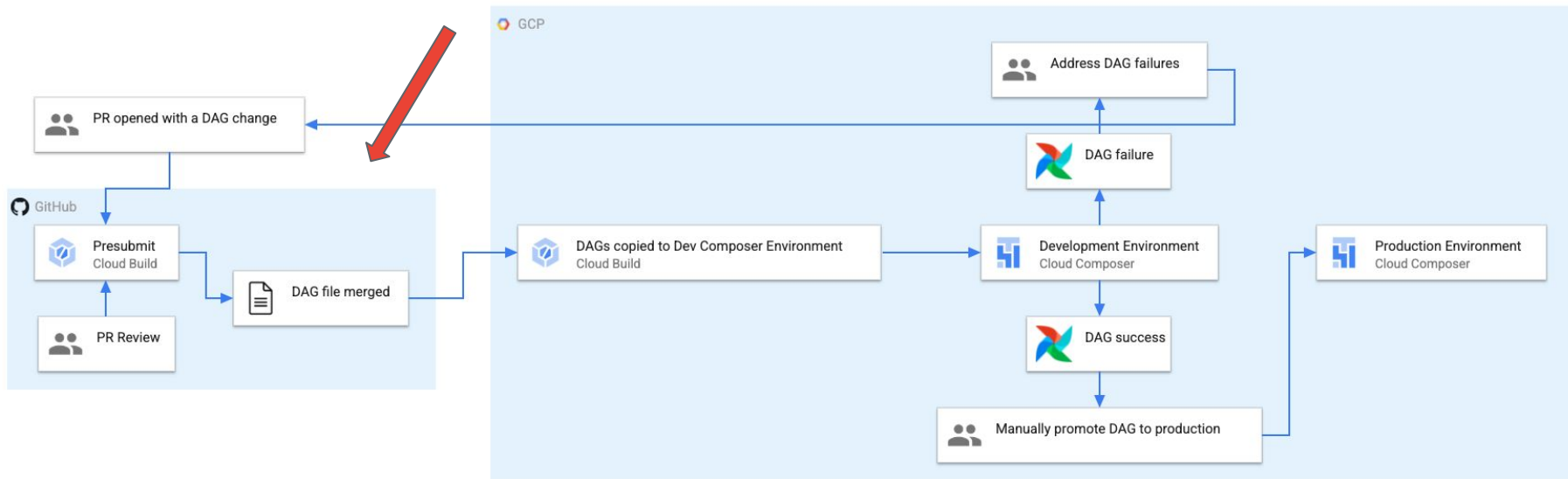
Multiple Airflow Environments

Use CI/CD to Keep DAGs in sync with Version Control



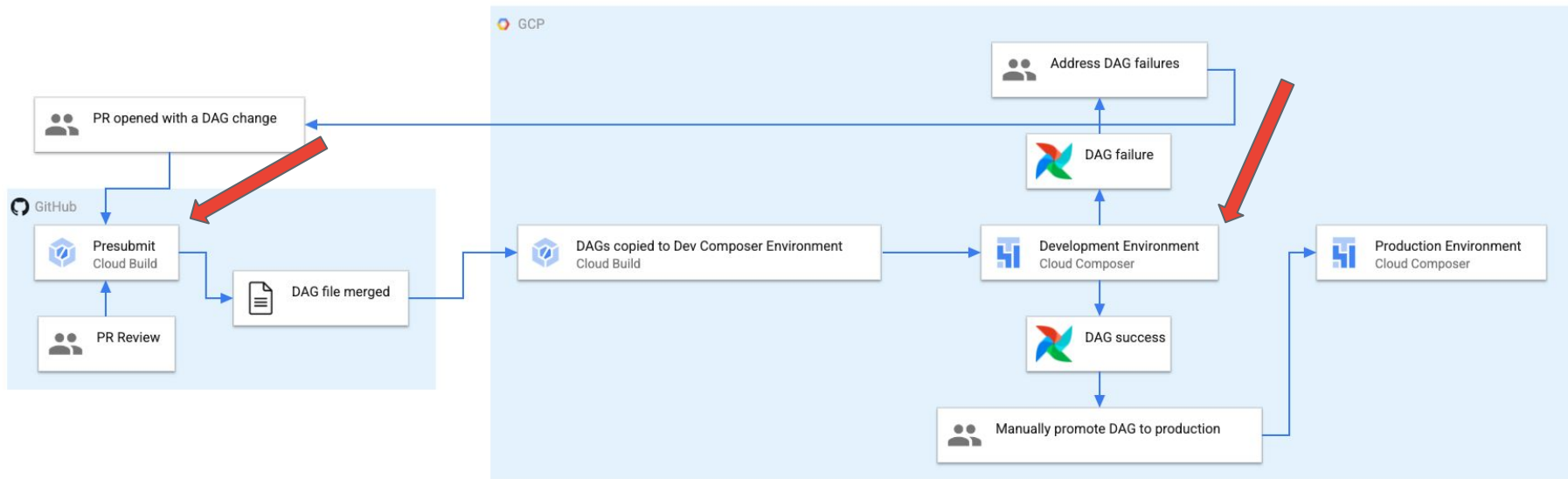
Version control

Use CI/CD to Keep DAGs in sync with Version Control



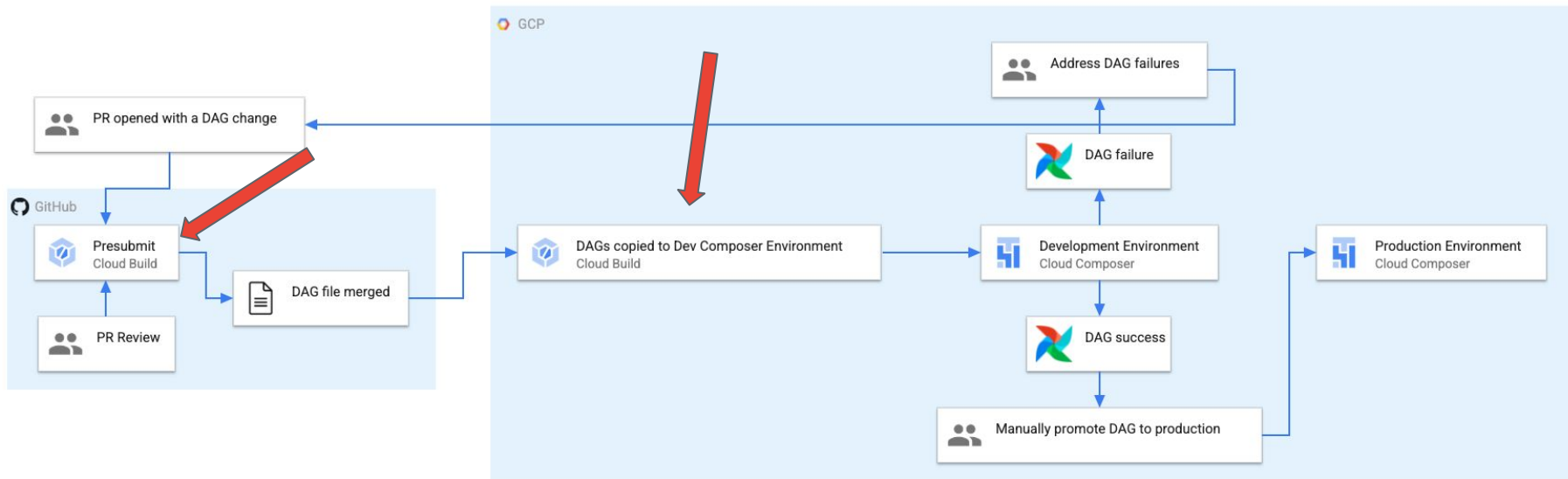
DAG testing

Use CI/CD to Keep DAGs in sync with Version Control



Automation

Use CI/CD to Keep DAGs in sync with Version Control



Demo



Thank you.



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Questions?

Additional Links

Airflow summit: airflowsummit.org

Cloud Composer tutorial with this info: <https://bit.ly/composer-cicd-tutorial>

Slides: <https://bit.ly/airflow-meetup-cicd-feb-2022>



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