

Part Two: Technologies

Mentors: Nathan Hook, Saquib Aziz Khan, Eric Nienhouse, Christy Grant

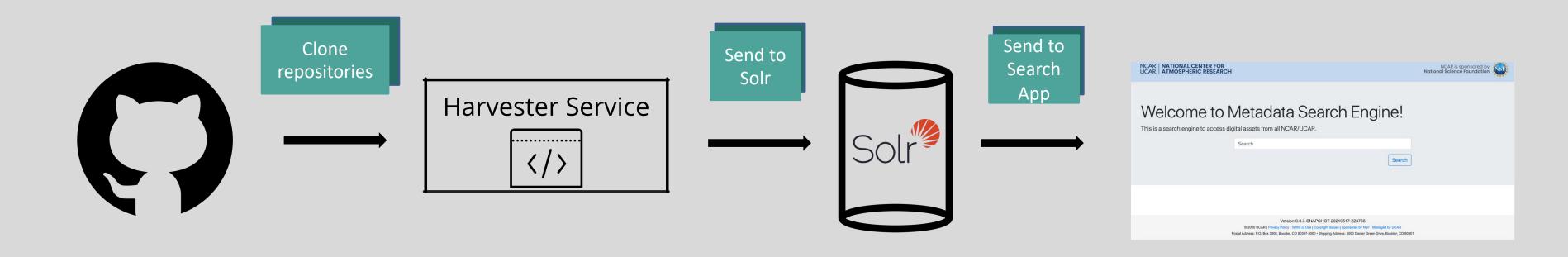




#### Table of Contents

- Introduction
  - The Metadata Search Application, initial state
  - Motivation of the Project
- Implementation and Technologies
  - Automation of the Harvester Service
  - Spring Boot, JGit, Webhook, Ngrok, Docker
- Results
- Future Work
- Acknowledgements
- References

# The Metadata Search Application: Initial State





Manually clone all repositories



Manually pull repositories to get updates



Restart application to start harvesting





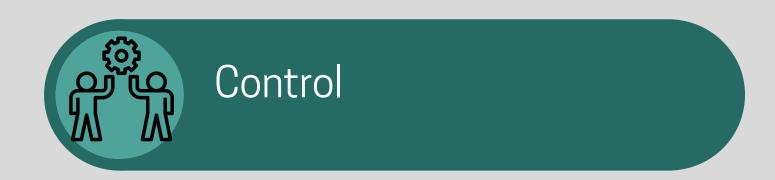




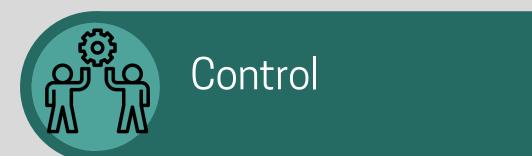


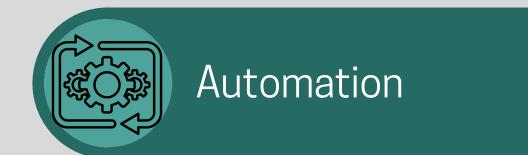




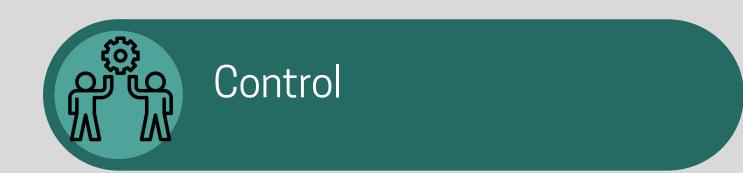


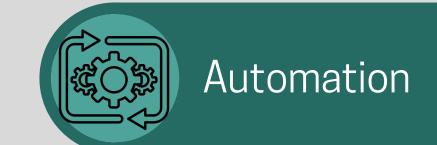


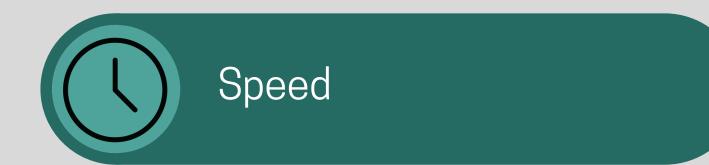


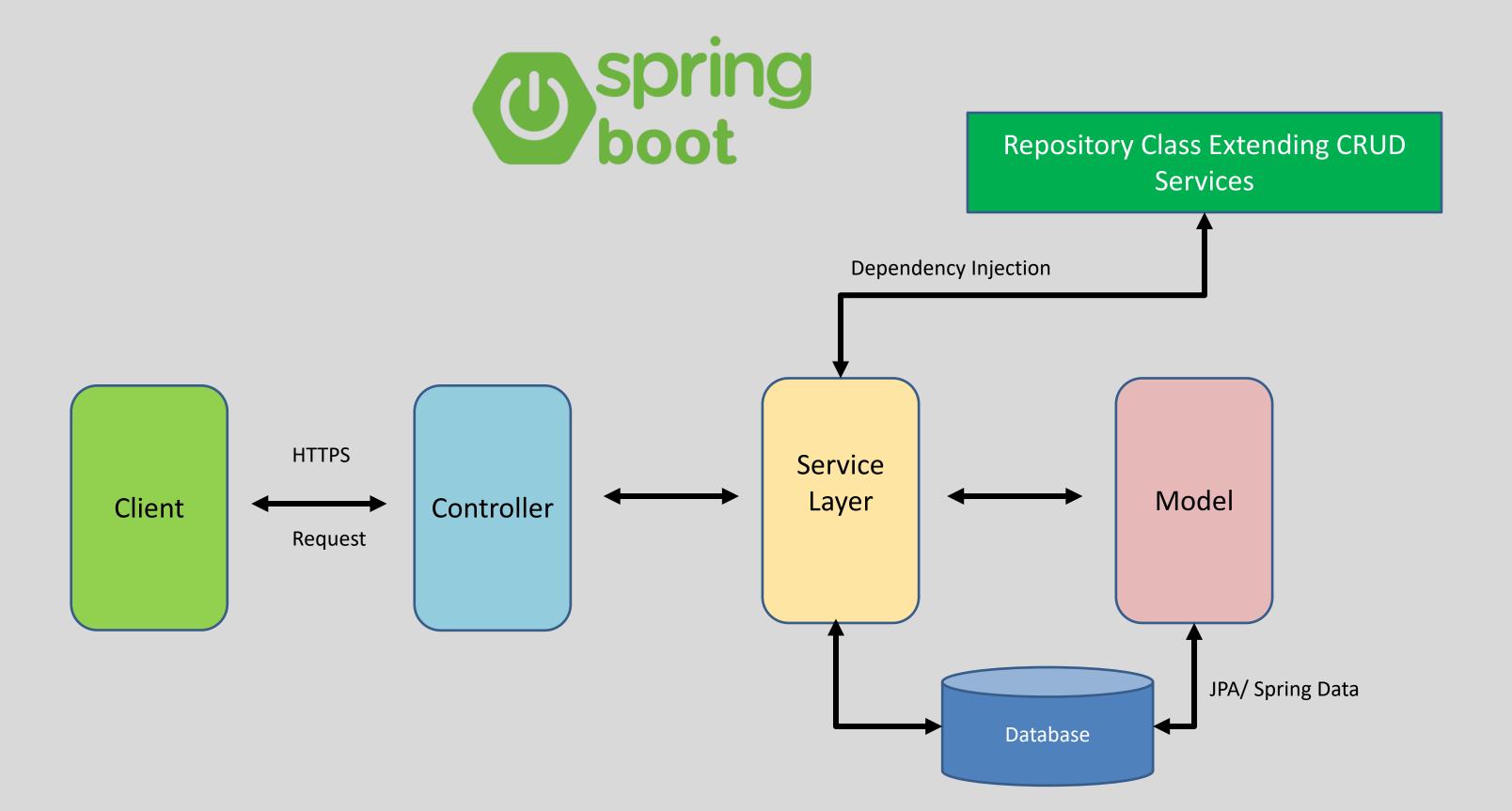














**Sama Manalai** / Terry Yuan SIParCS 2021: Project 7



#### Command line

```
The default interactive shell is now zsh.

To update your account to use zsh, please run `chsh -s /bin/zsh`.

For more details, please visit https://support.apple.com/kb/HT208050.

cisl-ws14:~ smanalai$ git clone https://github.com/smanalai/simple-spring-app-data

Cloning into 'simple-spring-app-data'...

remote: Enumerating objects: 84, done.

remote: Counting objects: 100% (84/84), done.

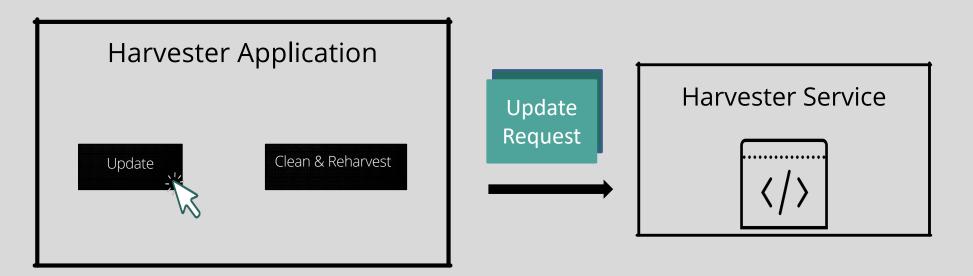
remote: Compressing objects: 100% (80/80), done.

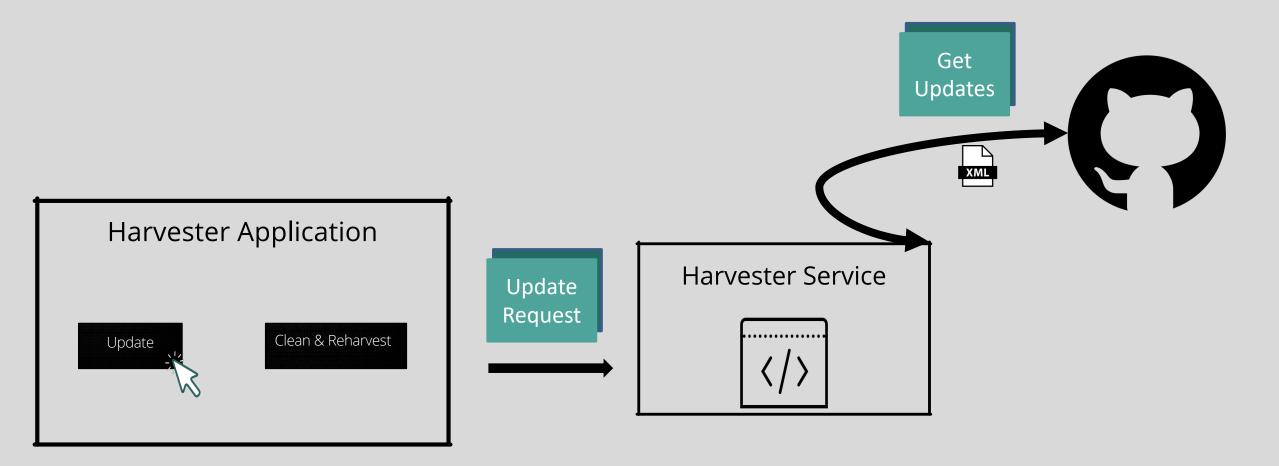
remote: Total 84 (delta 37), reused 0 (delta 0), pack-reused 0

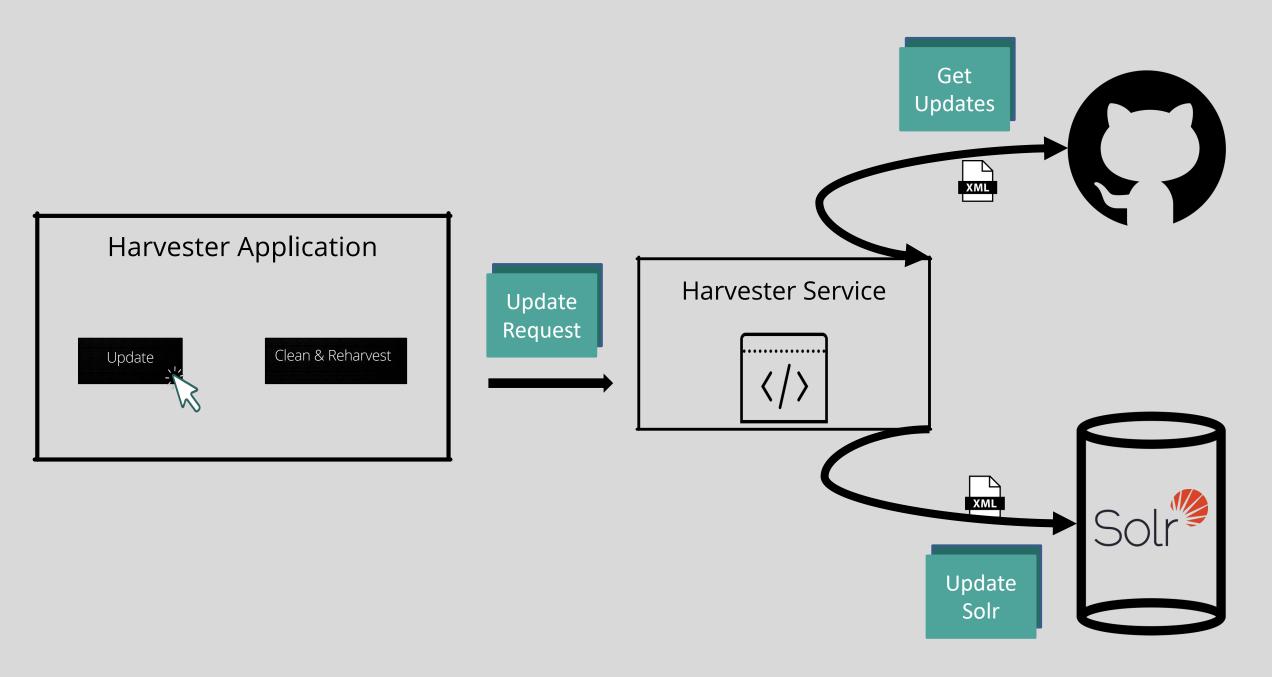
Unpacking objects: 100% (84/84), done.

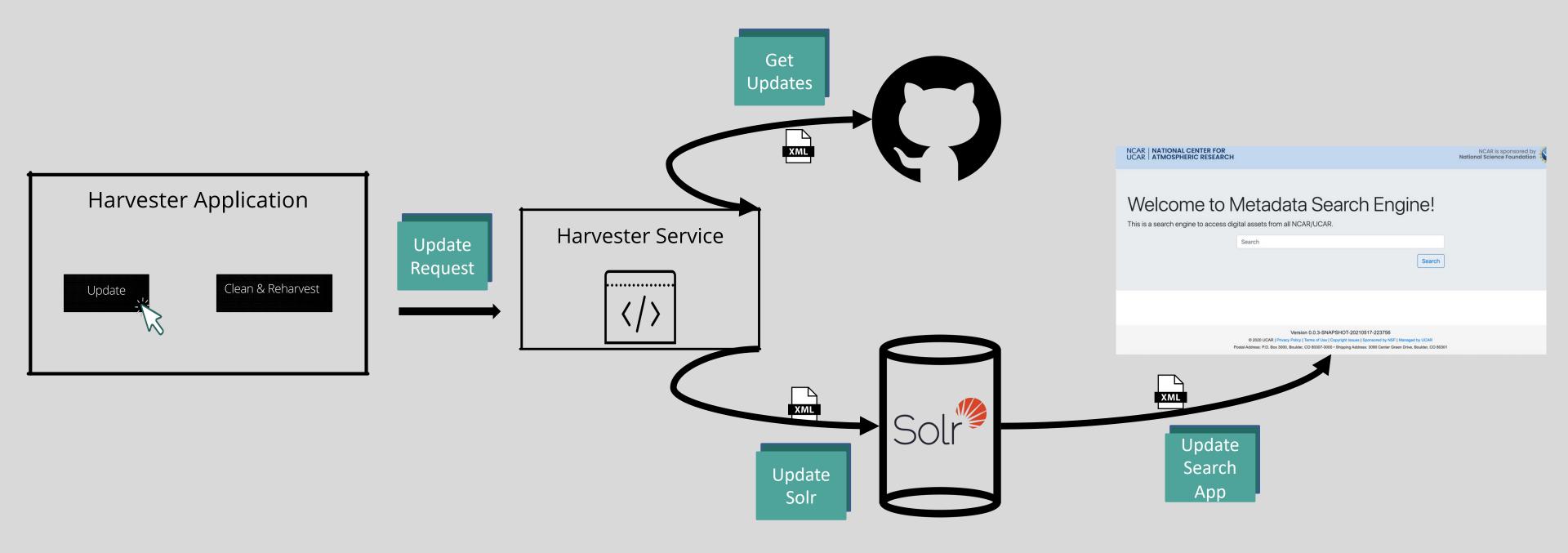
cisl-ws14:~ smanalai$
```

#### Source Code < >





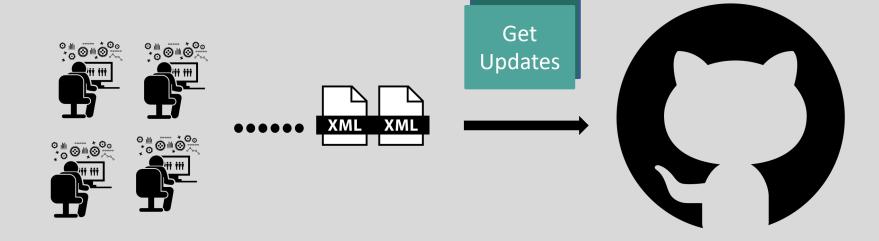


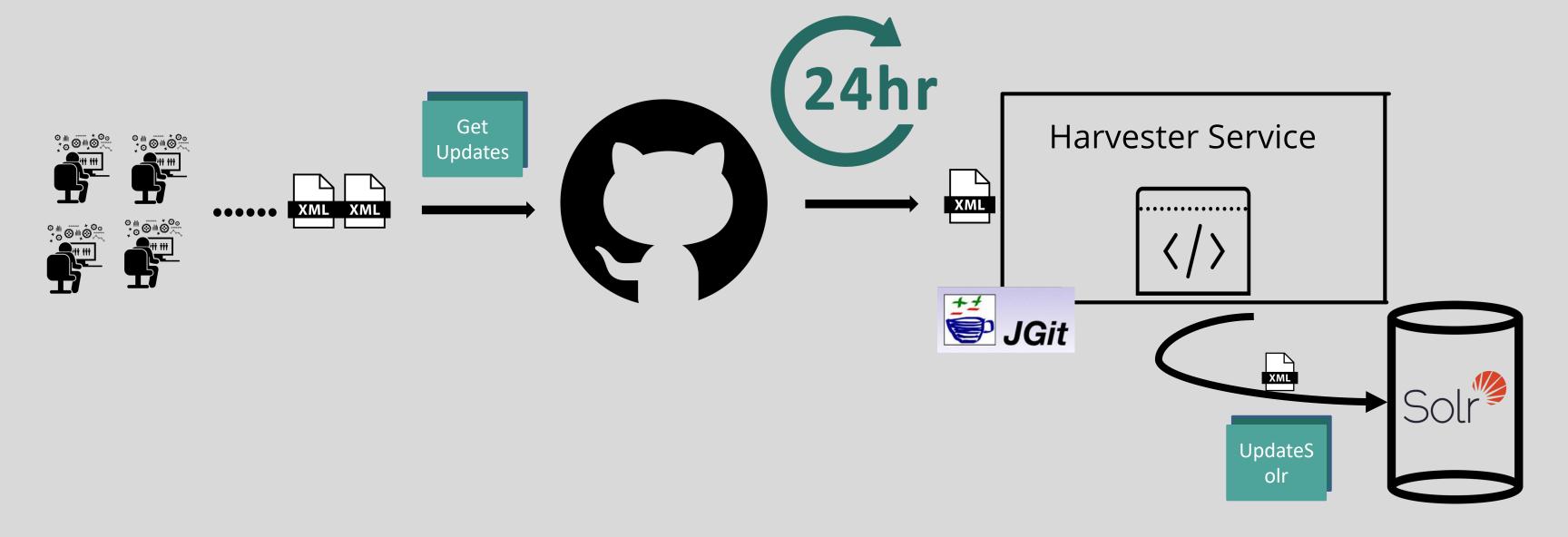


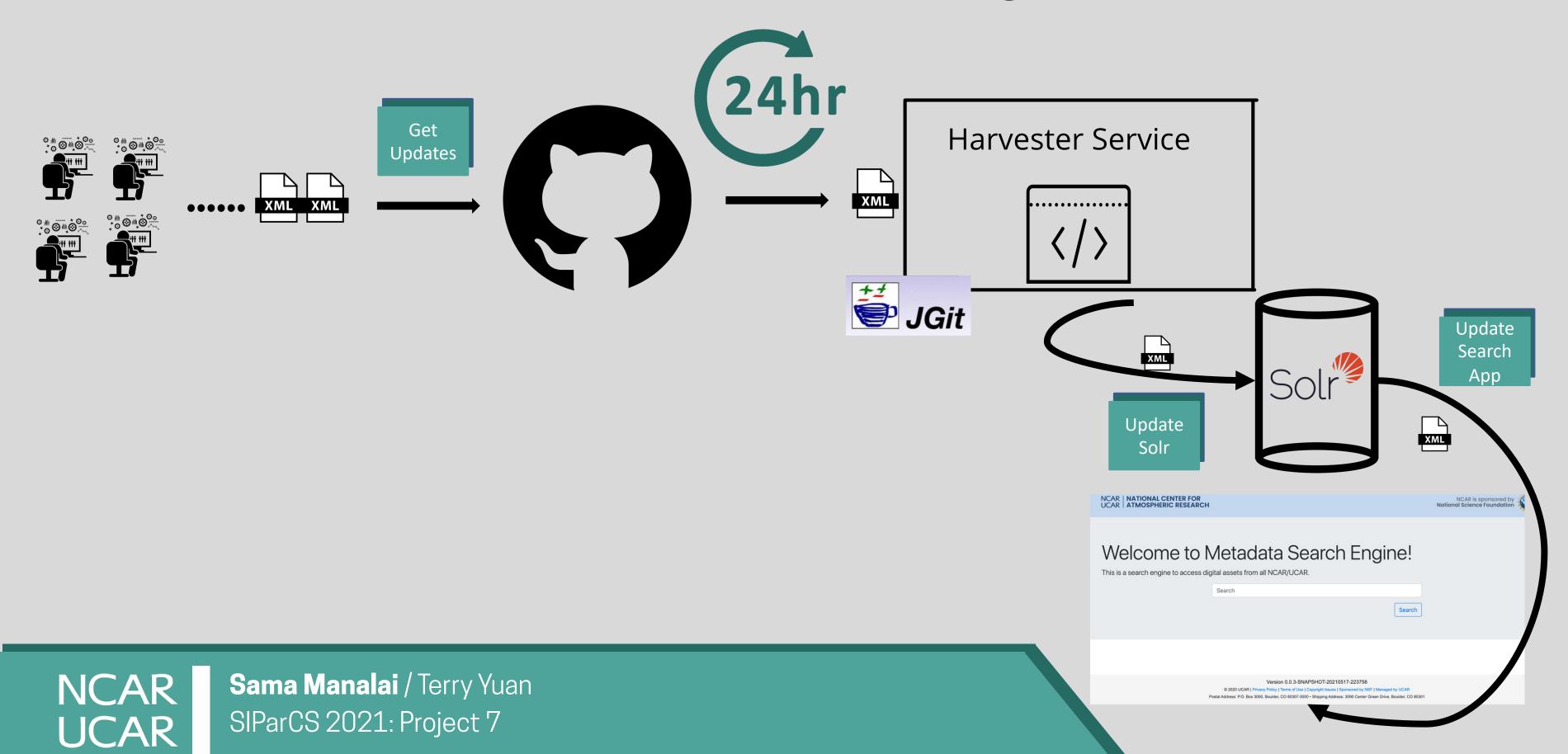






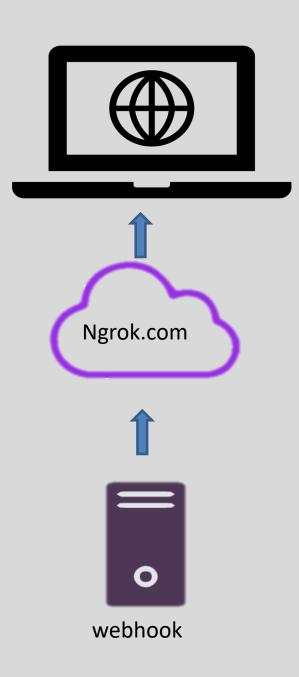














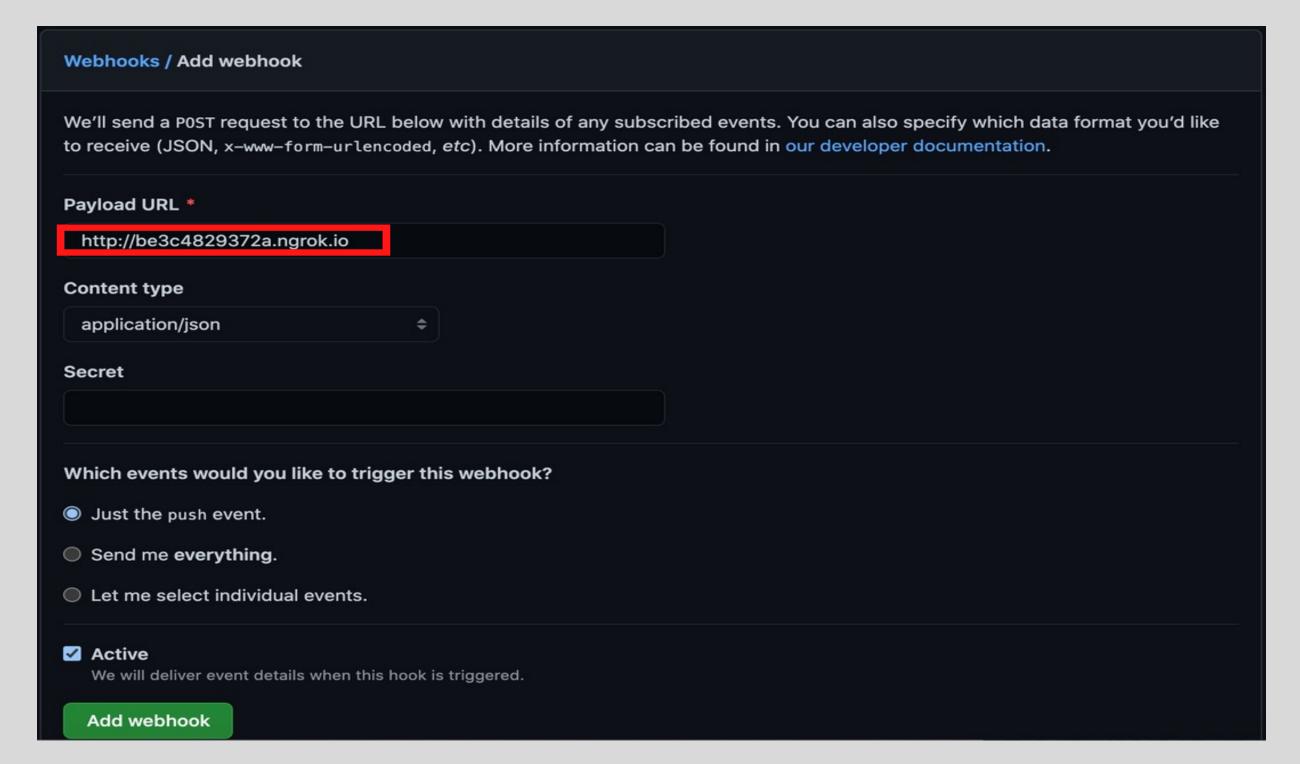
#### ngrok

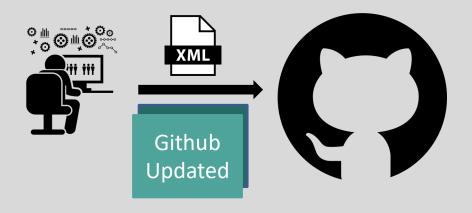
```
ngrok by @inconshreveable
Session Status
                              online
                              Sama Manalai (Plan: Free)
Account
Version
                              2.3.40
Region
                              United States (us)
Web Interface
                              http://127.0.0.1:4040
                             http://23618819d21c.ngrok.io -> http://localhost:8081
Forwarding
                              https://23618819d21c.ngrok.io -> http://localhost:8081
Forwarding
Connections
                              ttl
                                                      rt5
                                                              p50
                                                                      p90
                                              rt1
                                      opn
                                              0.00
                                                      0.00
                                                              62.32
                                                                      63.68
                                      0
HTTP Requests
POST /webhook
                               200
POST /webhook
                               200
```

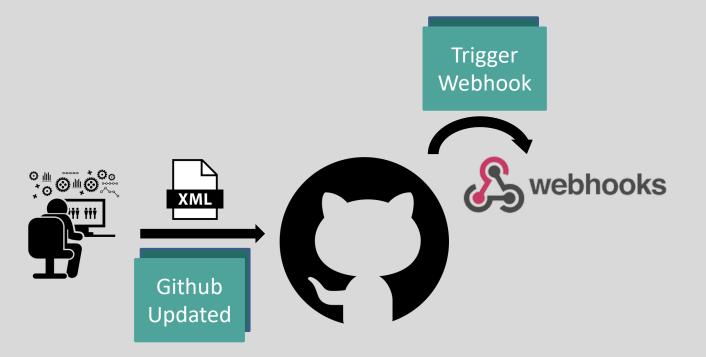


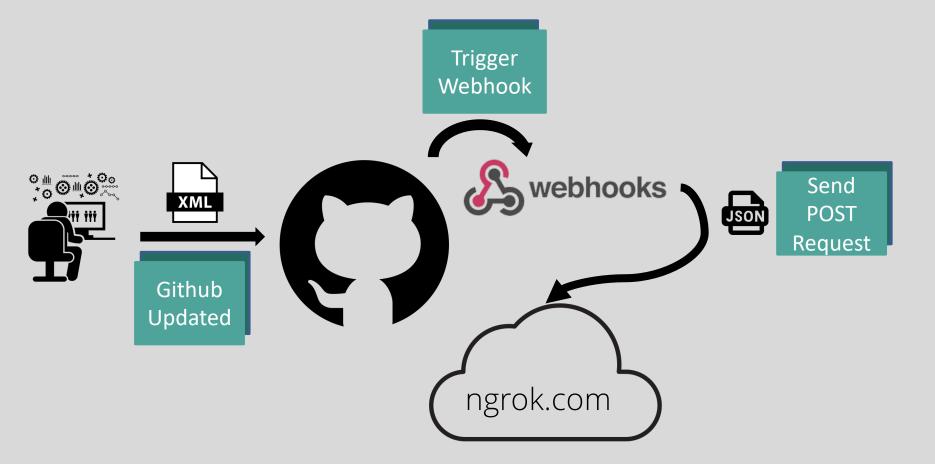
**Sama Manalai** / Terry Yuan SIParCS 2021: Project 7

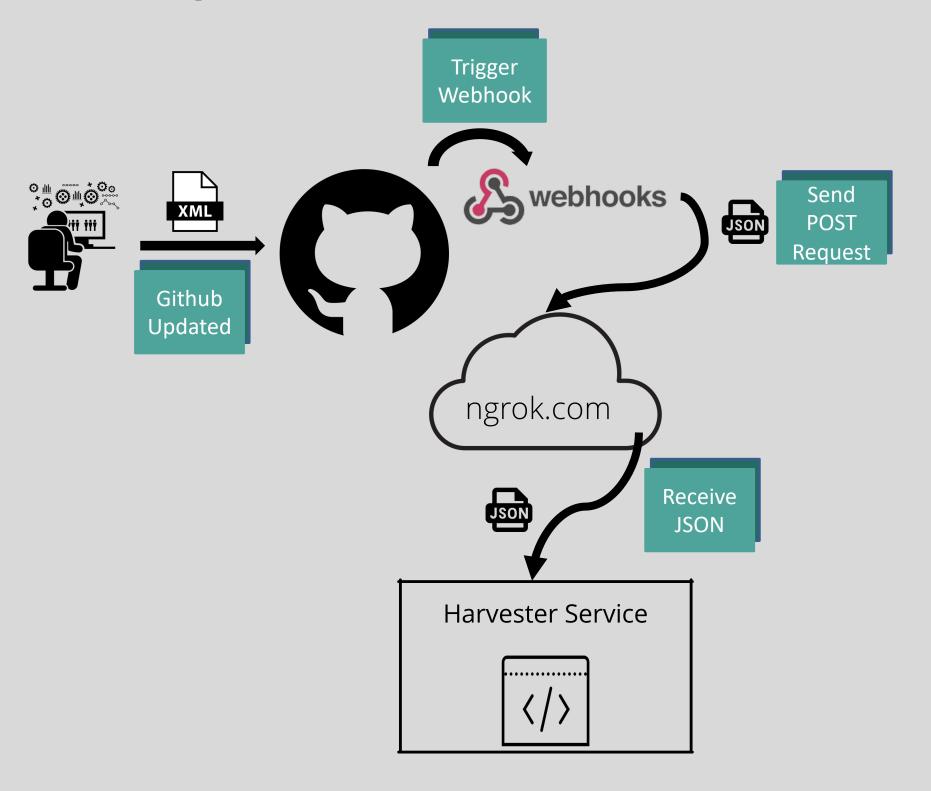


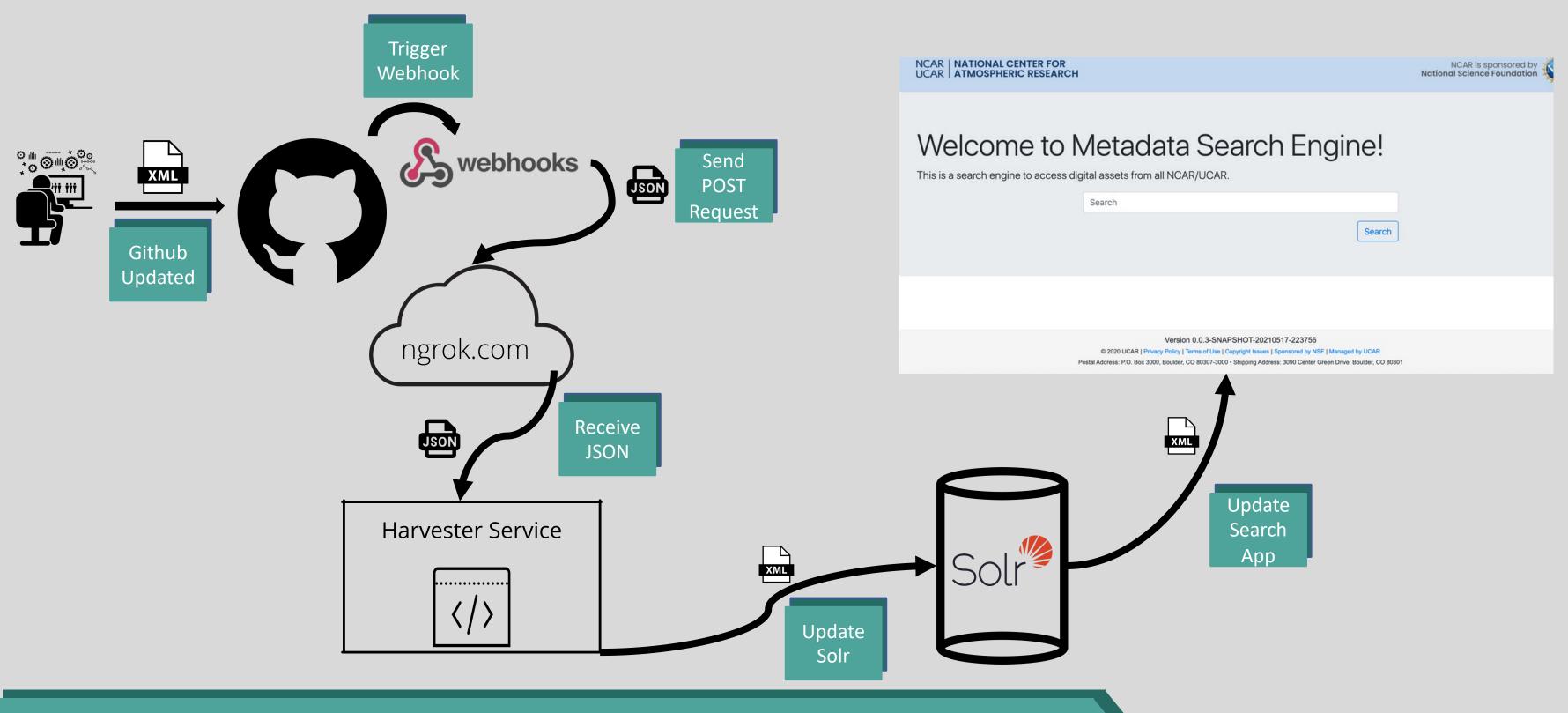




















### Acknowledgements

#### Thank You To...

#### **SIParCS Mentors:**

Nathan Hook, Saquib Aziz Khan, Eric Nienhouse,

Christy Grant

#### **SIParCS Program Leads**

AJ Lauer,
Virginia Do,
Jerry Cyccone,
Max Cordes Galbraith

...and everyone else for making this program happen

#### References

https://www.canva.com/

https://www.javatpoint.com/spring-boot-architecture

https://www.twilio.com/blog/2015/09/6-awesome-reasons-to-use-ngrok-when-

testing-webhooks.html

https://sendgrid.com/blog/whats-webhook/

https://git-scm.com/book/uz/v2/Appendix-B%3A-Embedding-Git-in-your-

**Applications-JGit** 

https://spring.io/projects/spring-boot