

Loguru + Context

(Python ContextVar)

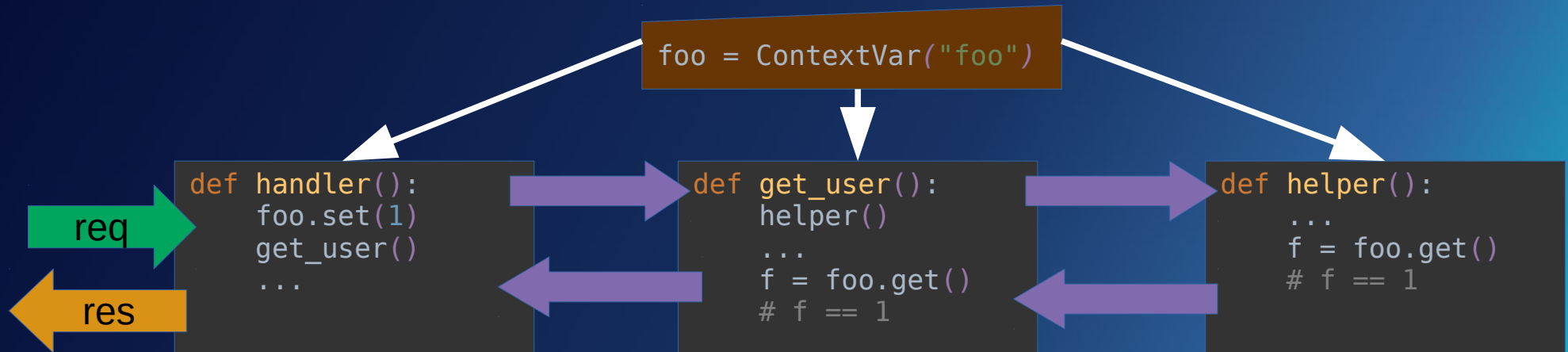
Problema

- Servicio basado en requests (web, Telegram bot...)
- Implementación de logs sobre varias funciones encadenadas
- Servidor async → Múltiples requests simultáneas → Log records de varias requests mezclados

¿Cómo saber el contexto de cada request en los logs?

Python ContextVars

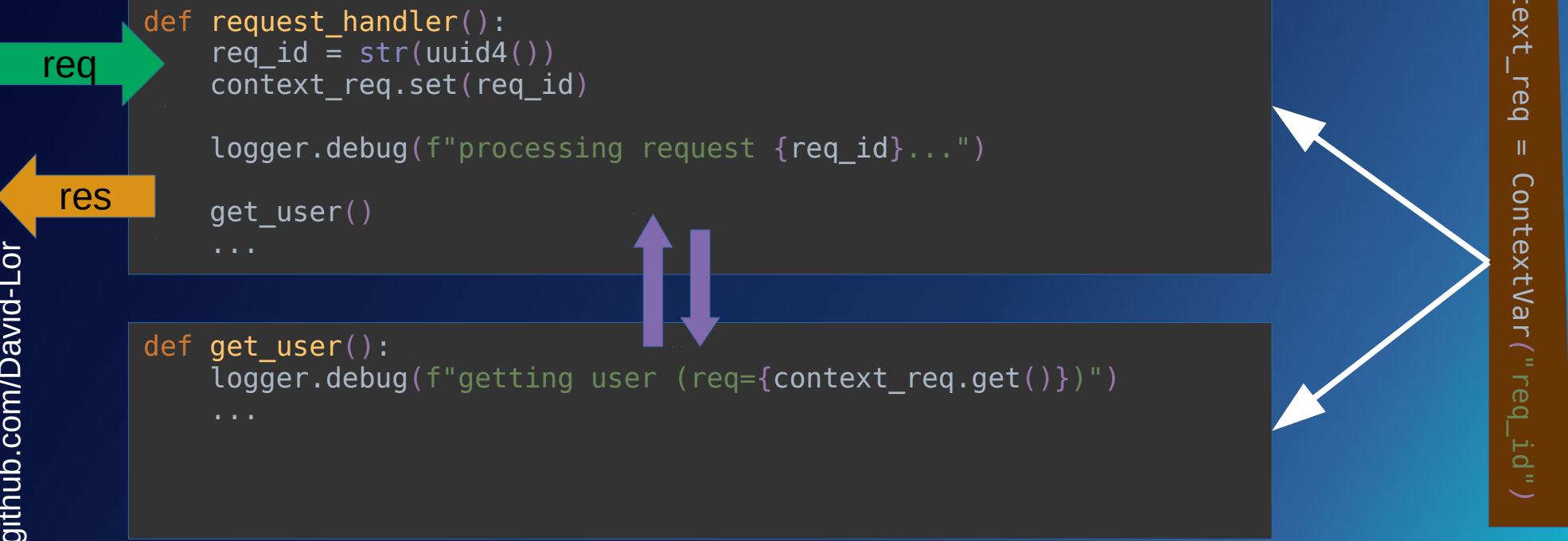
- Se definen en una función A()
- Todas las funciones llamadas desde A() pueden acceder a las variables definidas en A()



Python ContextVars

- Nos permitirían añadir contexto a las líneas de logs

context_req = ContextVar("req_id")



The diagram illustrates the use of ContextVars in Python. It features two function definitions in dark grey boxes. The top box contains the `request_handler()` function, which sets a request ID and logs the request. The bottom box contains the `get_user()` function, which logs the user information. A green arrow labeled 'req' points to the `request_handler()` function, and an orange arrow labeled 'res' points away from it. A purple double-headed arrow connects the two function boxes, indicating a call and return sequence. Two white arrows originate from the `context_req` variable box on the right, pointing to the `context_req.set()` line in `request_handler()` and the `context_req.get()` line in `get_user()`.

```
def request_handler():  
    req_id = str(uuid4())  
    context_req.set(req_id)  
  
    logger.debug(f"processing request {req_id}...")  
  
    get_user()  
    ...
```

```
def get_user():  
    logger.debug(f"getting user (req={context_req.get()})")  
    ...
```

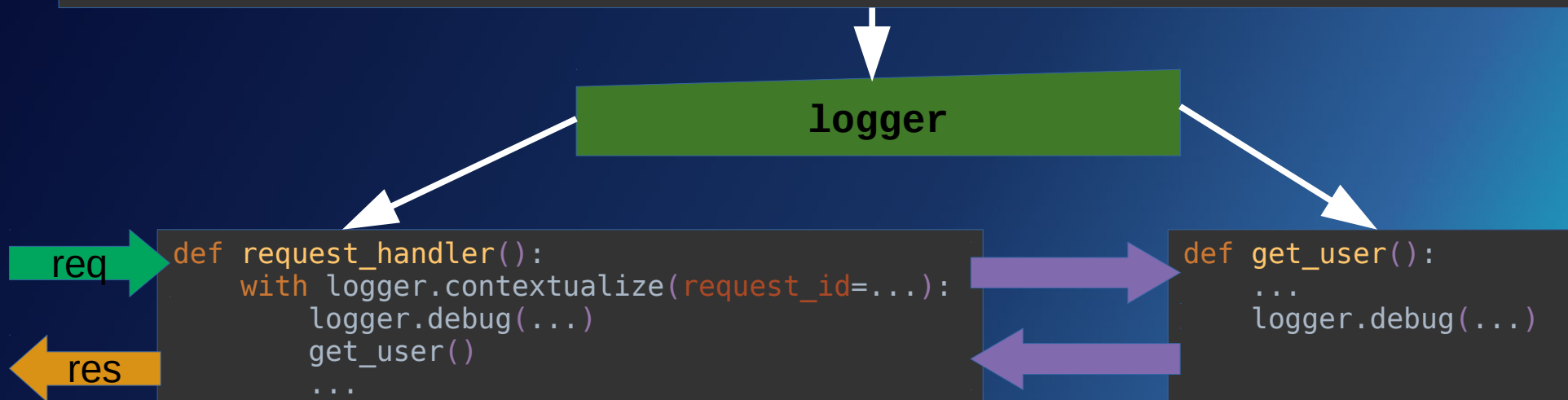
Ejemplos de variables de contexto en logs

- UUID de la request
- Origen de la petición (IP, Telegram Chat ID...)
- Petición realizada (verb – endpoint, comando...)
- Variables de la petición (body/query params)

Logging context con Loguru

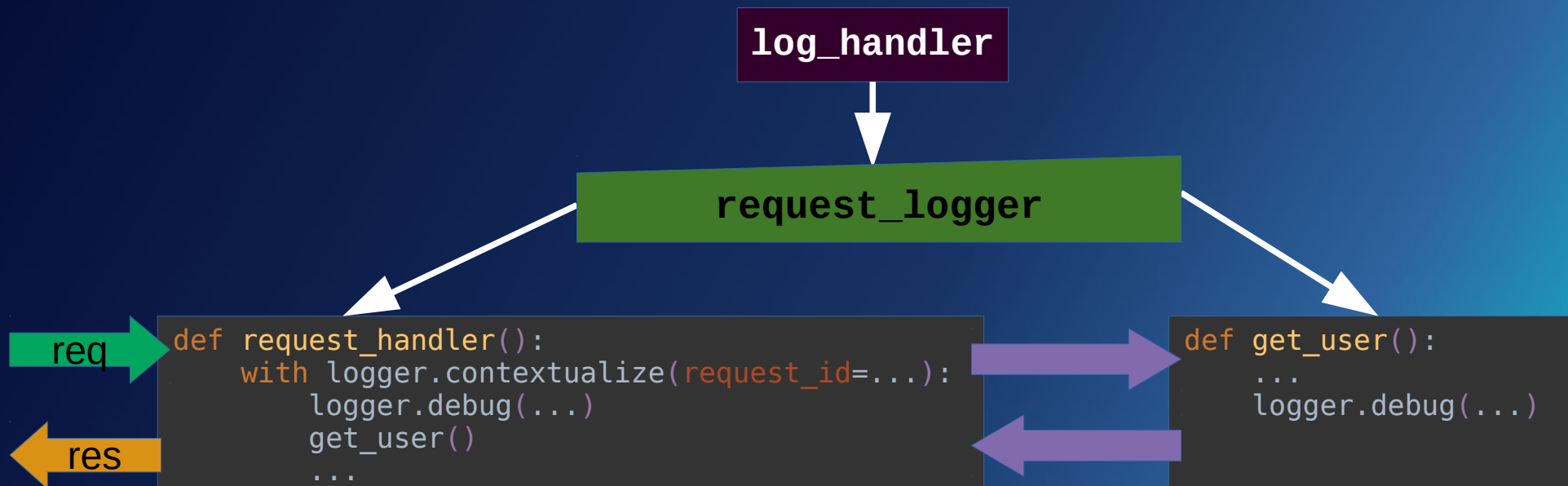
```
from loguru import logger

logger.remove()
logger.add(
    ...,
    level="DEBUG",
    format="{message} ({extra[request_id]})"
)
```



Persisting (failed) requests

- Cuando una request falle, queremos persistir todos los log record originados durante esa request



Persisting (failed) requests

