

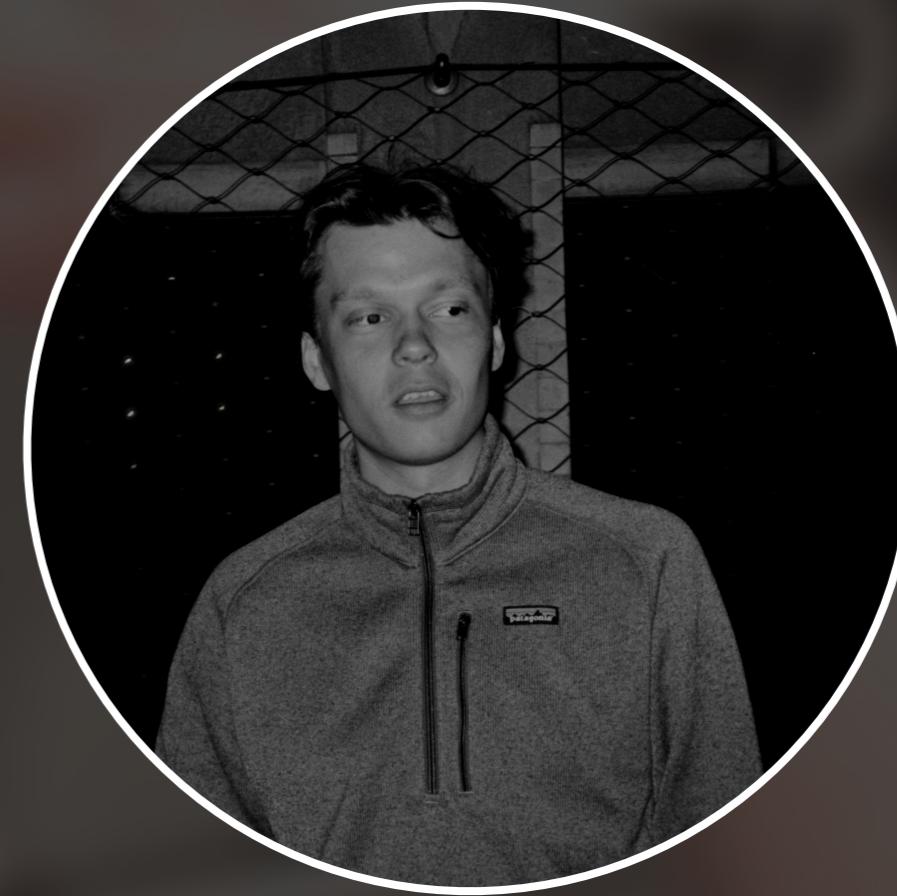
# Rust & WebAssembly Image Processing

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# Jonas Kruckenberg

Software Engineering Consultant  
Mainmatter | TC39 Invited Expert



and team!

ask us \_anything\_

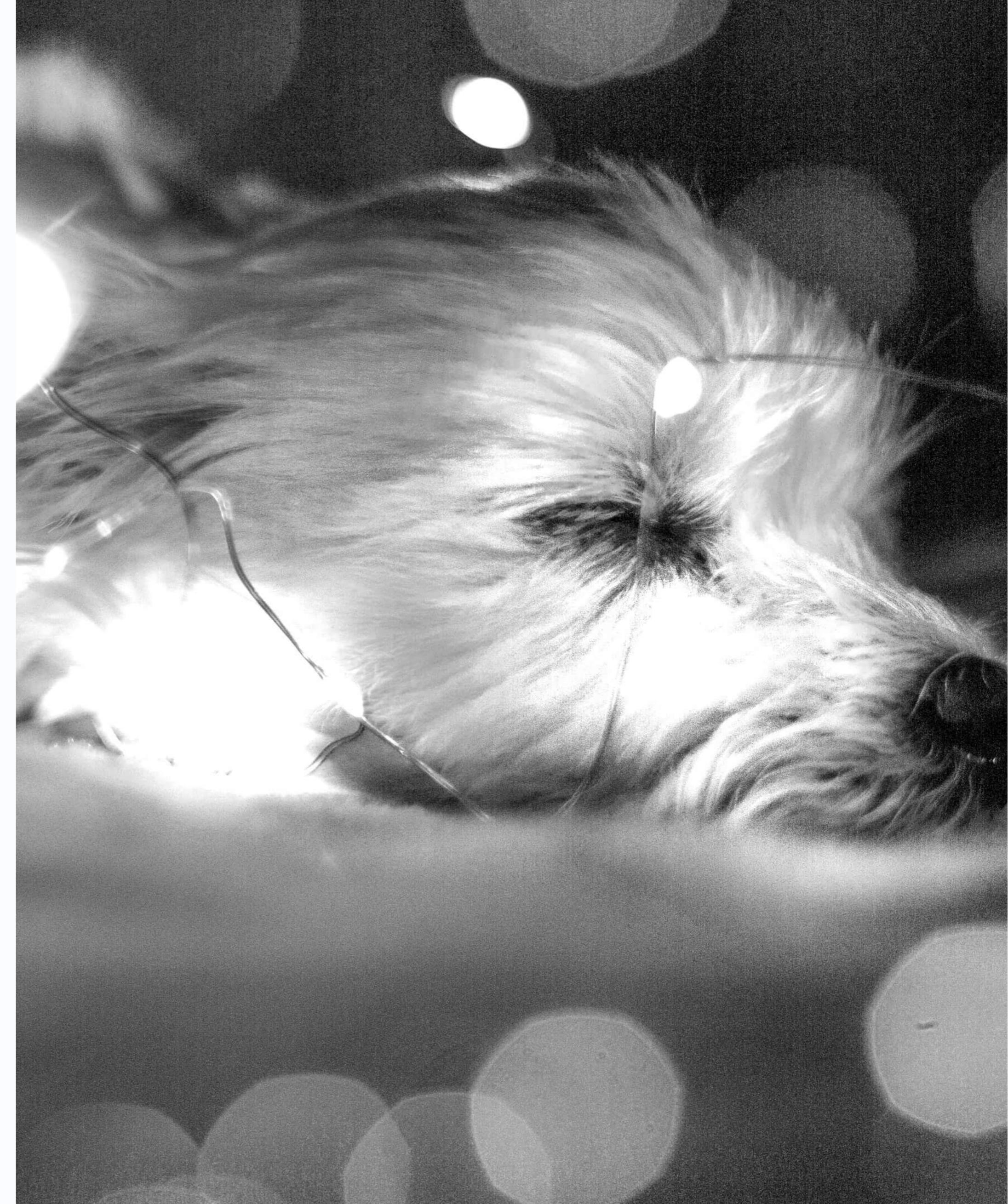
# Why Rust?

# Why Rust?

- **Strongly Typed**
- **Gives you control**
- **FAST without sacrificing safety**
- Loved by developers and  
growing rapidly → great DX
- Versatile → supports many  
targets

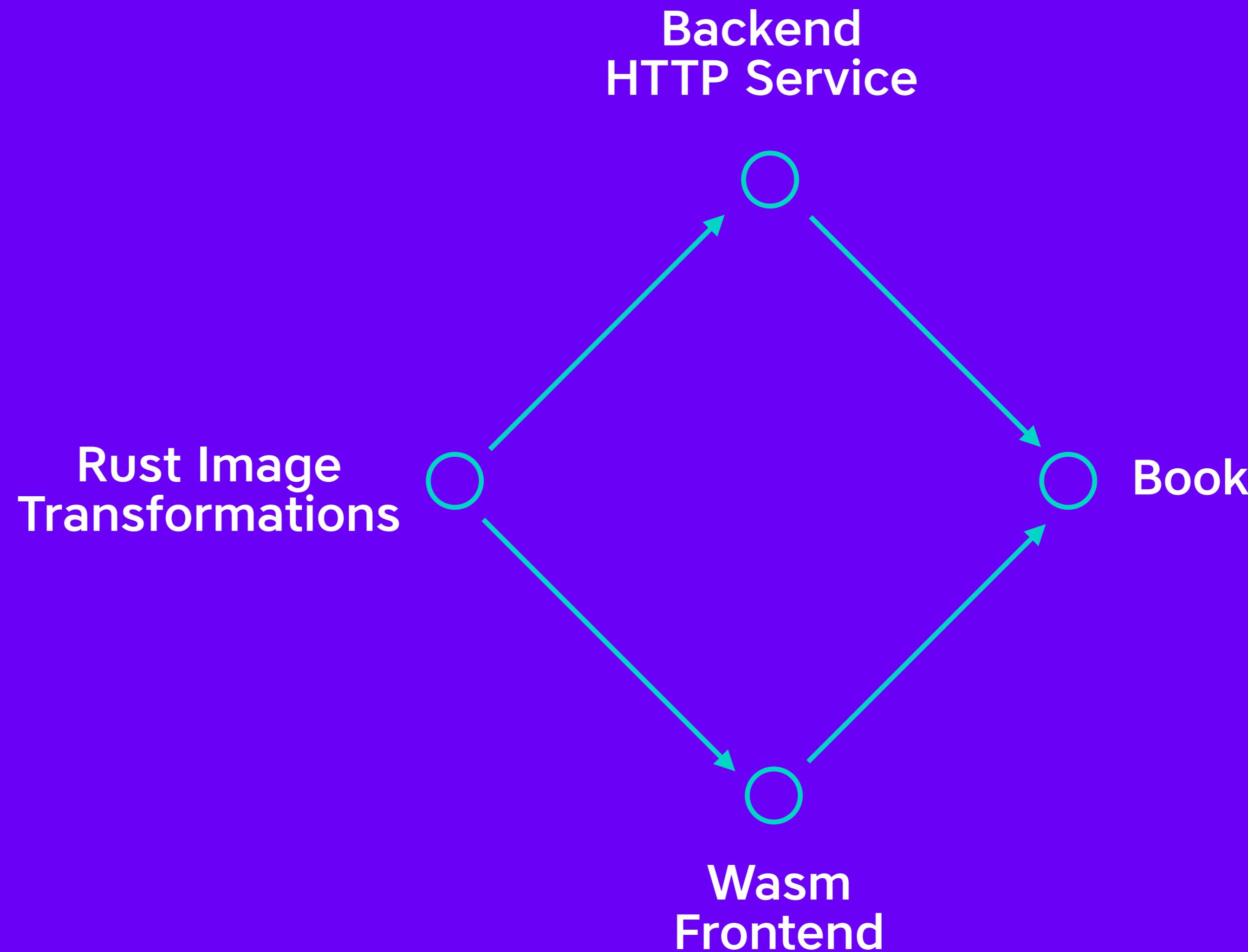
# why WebAssembly?

- Sandboxed + designed to be embedded
- In Browsers → Complement JavaScript for compute-heavy tasks
- Run in client **and** (and edge, and microcontrollers, and, and...)



# What We'll Build

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# learn by doing!

- Make sure you have the dependencies installed
- Start the servers with `serve.sh`
- Go to `localhost:3000`
- Exercises in `exercises/src/`
- **Grab a trainer if anything is unclear!!**

[https://github.com/mainmatter/  
rust-wasm-image-processing](https://github.com/mainmatter/rust-wasm-image-processing)

# What We Learned

- Functions, numbers, mutability
- Pattern matching
- Ownership & borrowing
- Collections and iterators
- Closures and parallel iteration

You are (probably) NOT  
an expert now  
and that is okay!!

<https://rust-exercises.com/>

100 Exercises To Learn Rust

October 14–17, 2026  
Barcelona and online  
[eurorust.eu](http://eurorust.eu)



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