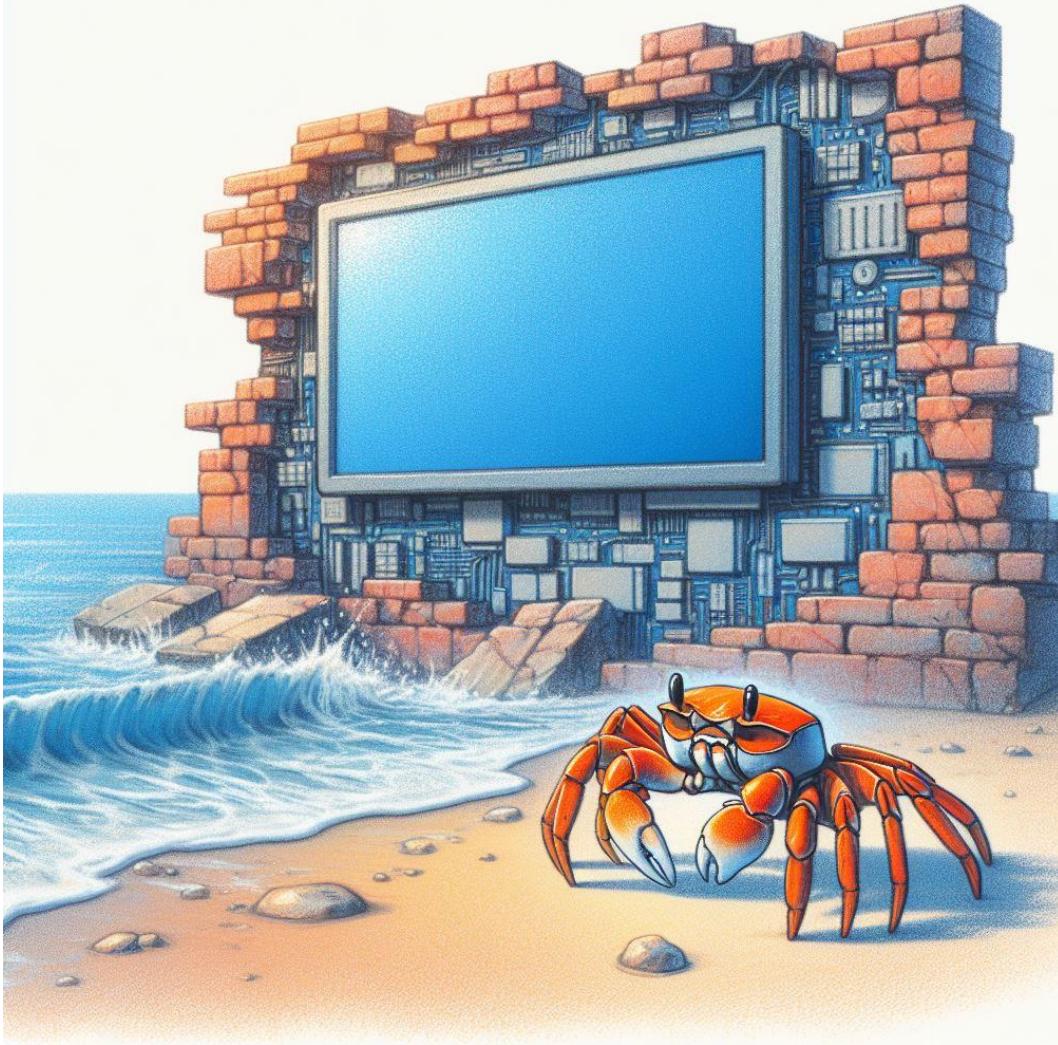


Infoskjerm!

Rust meetup 23.04.24
Sverre Johann Bjørke





knowit



knowit



imgflip.com

software.

software.
Written in Rust

knowit



Are we GUI yet? +

https://areweguiyet.com

Azul | cacao | conrod-core

Azul GUI is a free, functional, reactive GUI framework for rapid development of desktop applications.

Rust bindings for AppKit (macOS/Airyx/GNUStep, beta) and UIKit (iOS/tvOS, alpha).

An easy-to-use, 100% Rust, extensible 2D GUI library.

downloads 141k | crate | repo | docs

generates and C++ objects that uses the cxx rust and C++.

downloads 5.8k | qml | crate | repo | docs

total Rust-based API for a polished UI. Addors to this interface of objects to support the platform.

downloads 122k | conrod | crate | repo | docs

lightweight gui library to produce UIs.

downloads 242k | ftk | crate | repo | docs

flexible platform.

downloads 4.3k | knowit | crate | repo | docs

Podcast

Rustacean Station

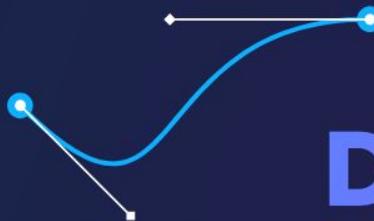
Rustacean Station

As a low-level language, the old fashioned way of typically running on an unattractive option for many,

Follow

knowit

📣 Slint 1.5: Embracing Android, Improving Live-Preview, and introducing Pythonic Slint



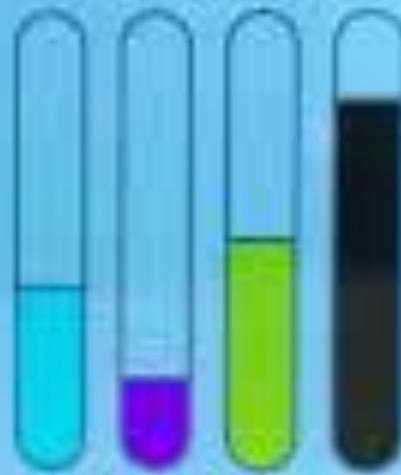
Design to Deploy



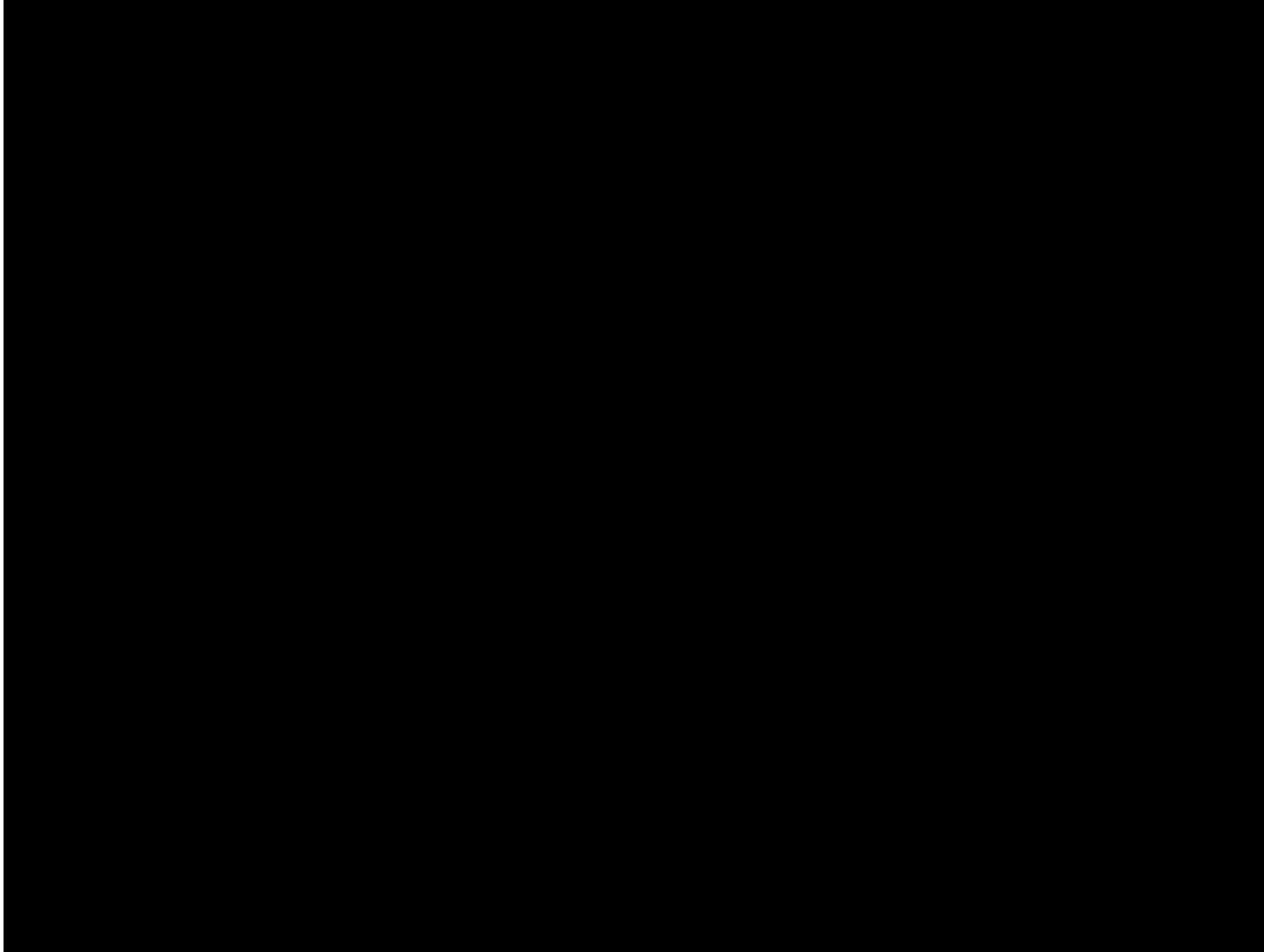
Build native GUIs for Embedded and Desktop

[Star on GitHub](#)[See Demos](#)

Ink Level



264 KiB RAM



DSL

Slint



[Language](#)

APIS

Using Rust



[API](#)

[QuickStart](#)

[Video Tutorial](#)

[Project Template](#)

APIS

Using C++



[API](#)

[QuickStart](#)

[Project Template](#)

APIS

Using NodeJS (beta)



[API](#)

[QuickStart](#)

[Project Template](#)

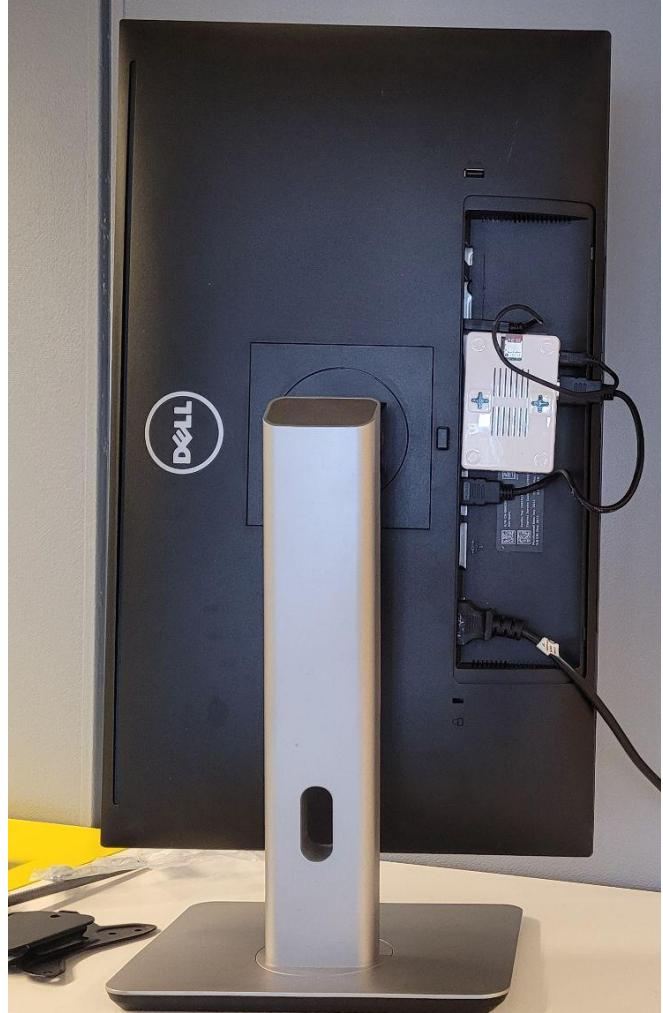
Krysskompilering

I teorien:

```
> rustup target add armv7-unknown-linux-gnueabihf  
> cargo build --target armv7-unknown-linux-gnueabihf
```

I *praksis*:

```
error occurred: Failed to find tool. Is  
'arm-linux-gnueabihf-gcc' installed?
```



knowit

v0.0.1

knowit



Slack-aktivitet

Værneding?

13:45:36



Sidequest 1: CICD

- Ingen ARM runners på github
- Krysskompilering med Cross
 - Må først installere Cross - treigt
 - Må kompile alle avhengigheter kvar gang
- Zigbuild - Zig som linker
 - Eit par minutt raskare! :)

cargo-zigbuild

CI passing crates.io v0.18.3 docs passing pypi v0.18.3 docker pulls 7.5k

Help me to become a full-time open-source developer by [sponsoring me on GitHub](#)

Compile Cargo project with [zig](#) as [linker](#) for [easier cross compiling](#).

The screenshot shows a GitHub Actions workflow named "Build and release" with a configuration file "build_and_release.yml". The page displays 37 workflow runs. The first few runs are listed:

- refs/tags/v0.0.27: Build and release #37: Commit ccff00b pushed by sverrejb (last month, 1m 1s ago, v0.0.27)
- foodtracker-beta: Build and release #36: Manually run by sverrejb (last month, 59s ago, foodwidget-deux)
- refs/tags/v0.0.26: Build and release #35: Commit 348ae0c pushed by sverrejb (last month, 1m 18s ago, v0.0.26)
- v0.0.25: Build and release #34: Manually run by sverrejb (last month, 1m 21s ago, main)

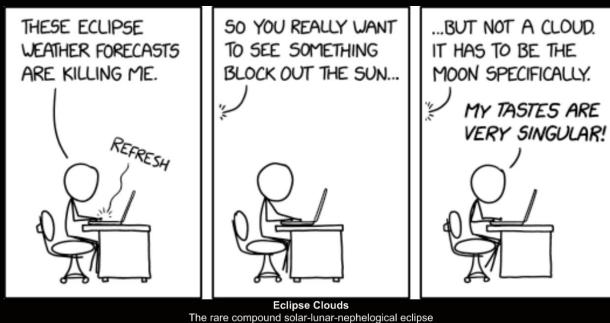
Værret i dag

09:00		-0.7°C	0.0mm
10:00		0.8°C	0.0mm
11:00		2.1°C	0.0mm
12:00		3.2°C	0.0mm
13:00		4.2°C	0.0mm
14:00		5.0°C	0.0mm
15:00		5.6°C	0.0mm

Værret i morgen

06:00		-2.4°C	0.0mm
07:00		-2.6°C	0.0mm
08:00		-1.6°C	0.0mm
09:00		0.2°C	0.0mm
15:00		6.7°C	0.0mm
16:00		6.8°C	0.0mm
17:00		6.3°C	0.0mm

Værmelding



XKCD!

Fagdag i Åre!

- Hackaton!
- Design!
- Features!
- Sosialt!



Frame 9665

Mandag 5 August

10:46



I dag



I morgen

Kalender

Events

Møterom



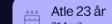
Lønnings pils

31April



Kundemøte

31April



Atle 23 år

31April



Internmøte

31April



For timer

31April



3d print kurs

31April

Busstider

Prinsens gate P1

Prinsens gate P2

3 Lade → Prinsen gt.	10:48	1 Prøbadet → Leos lekela...	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48
3 Lade → Prinsen gt.	10:48	1 Prøbadet → Leos lekela...	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48

Kongens gate

Flybussen

3 Lade → Prinsen gt.	10:48	Dronningens gate D2	10:32
9 Lan → St. Olavs	10:48	Dronningens gate D2	10:48
3 Lade → Prinsen gt.	10:48	Dronningens gate D2	10:48
3 Lade → Prinsen gt.	10:48	Dronningens gate D2	10:48
3 Lade → Prinsen gt.	10:48	Dronningens gate D2	10:48
9 Lan	10:48	Dronningens gate D2	10:48

Frame 9666

Mandag 5 August

10:46

Mat leveranse

Fra

Burger King

Status

Transport

ETA

~5 minutter



Kalender

Events

Møterom



Fagtur

31April



Fagtur

31April



Fagtur

31April



Fagtur



Fagtur

31April

Busstider

Prinsens gate B1

Prinsens gate B2

Kongens gate

3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48
3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48	3 Lade → Prinsen gt.	10:48

KKCD

HØRES: THE SITUATION

THIS LINE IS HERE

BUT IT'S COME

UP BEHIND ME

HEHE...

...SO GOOD

...SO GOOD

SO THINGS WILL BE SAID

UNLESS SOMEONE DOES

SOMETHING ELSE

SAY ANYTHING

ACTUALLY,

YOU DON'T KNOW

SOMETHING ELSE

SO YOU DON'T KNOW

AND THE GRAM SAYS

THINGS WILL BE SAID

BUT IF NO ONE

ACTS, THEY'LL

BECOME BAD

SOUNDING YOU THIS

WELL, PLEASE LET ME

KNOW IF THAT HAPPENED

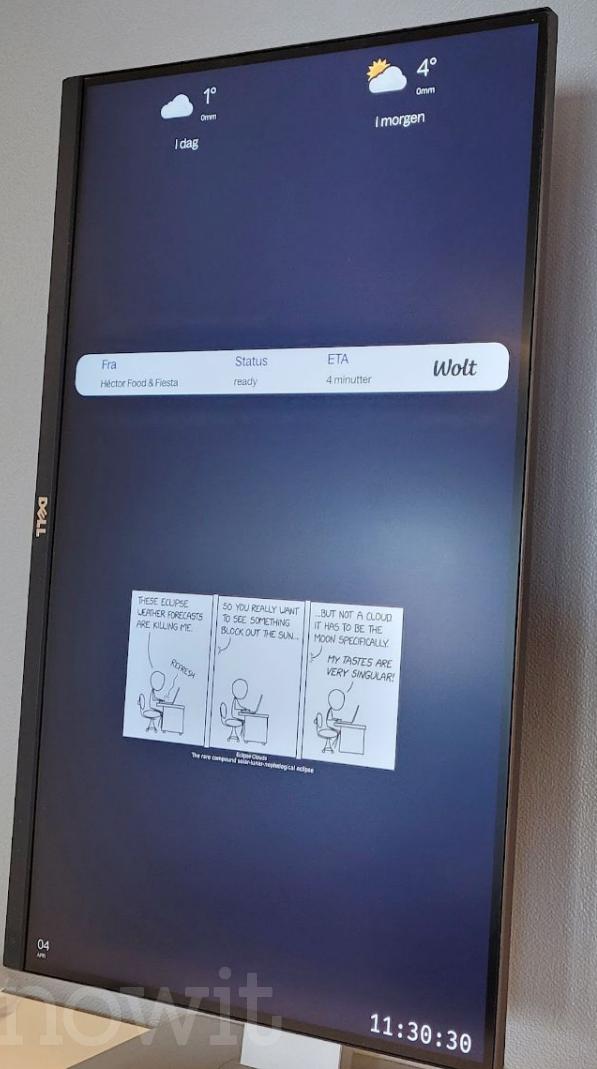
BECAUSE I'M GOING TO

END THE CONVERSATION

IF ALREADY HIS

ENDS

ENDS



A screenshot of a web browser window titled "Tracking Form" with the URL "localhost:1337/food". The page features a large title "Tantalizing Thursday treat tracker" and a subtitle "Tracking URL:". Below the subtitle is a text input field and a green "Submit" button.

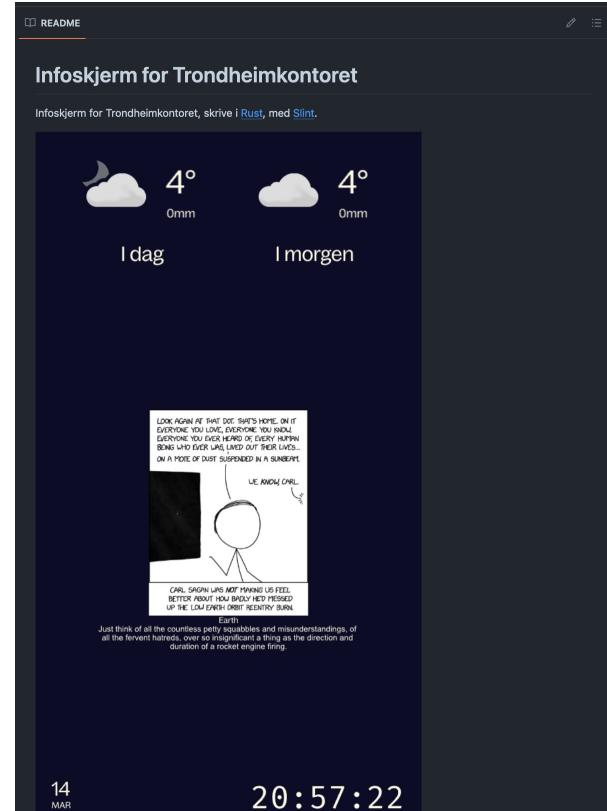
Tantalizing Thursday treat tracker

Tracking URL:

Submit

Sidequest 2: Automatisk screenshot

- Ingen “skjerm” på github actions
- xvfb - Funka ikke
- xvnc - Funka ikke
- OpenGL, Metal, Vulkan, and Direct3D etc
 - FUNKA IKKJE 😱



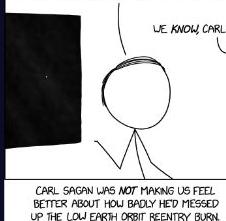
4°
0mm

I dag

4°
0mm

I morgen

LOOK AGAIN AT THAT DOT. THAT'S HOME. ON IT
EVERYONE YOU LOVE. EVERYONE YOU KNOW.
EVERYONE YOU EVER HEARD OF. EVERY HUMAN
BEING WHO EVER WAS, LIVED OUT THEIR LIVES...
ON A MOTTE OF DUST SUSPENDED IN A SUNBEAM.



Earth

Just think of all the countless petty squabbles and misunderstandings, of all the fervent hatreds, over so insignificant a thing as the direction and duration of a rocket engine firing.

```
- name: Run and take screenshot
run: |
  cargo run --release > cargo.log 2>&1 &
  sleep 5
  cat cargo.log
  osascript -e 'tell application "System Events" to tell process "infoskjerm" to set position of window 1 to {0, 0}'
  window_info=$(osascript -e 'tell application "System Events" to tell process "infoskjerm" to get {position, size} of window 1')
  x=$(echo $window_info | cut -d, -f1)
  y=$(echo $window_info | cut -d, -f2)
  w=$(echo $window_info | cut -d, -f3)
  h=$(echo $window_info | cut -d, -f4)

  rectangle="${x},${y},${w},${h}"
  rectangle=$(echo $rectangle | tr -d ' ')
  screencapture -R$rectangle screenshot.png
```

Kva har ~~eg~~ vi lært?

- Rust!
 - Multithreading
 - Async/await
 - Krysskompilering
- Github Actions
- Applecsript
- ICAL-formatet
- GraphQL
- Yr-API / GeoJSON
- Entur-API'et
- +++