



Led-Hat with Open Access

How to wrap 5m of LEDs around your head

Ingredients



Rust

Hand-written server
using axum



HTML/JS

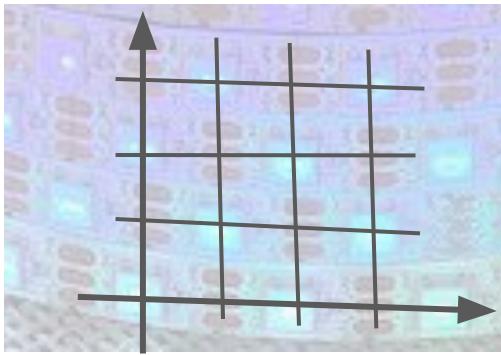
Claude-written UI for
admin and open
access



C++

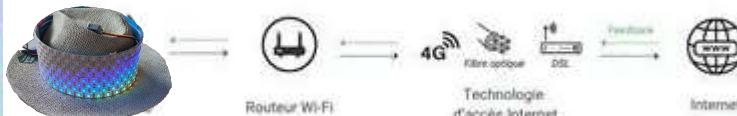
Hand-written code
written in Arduino
environment

Main Challenges



LED-arrangements in X- and Y- position

Convolutions,
Lanczos filters,
Brightness



Network fun

- 30 packets/s, low jitter
- GET, SSE, UDP
- UDP limits
- WiFi / 5G ?

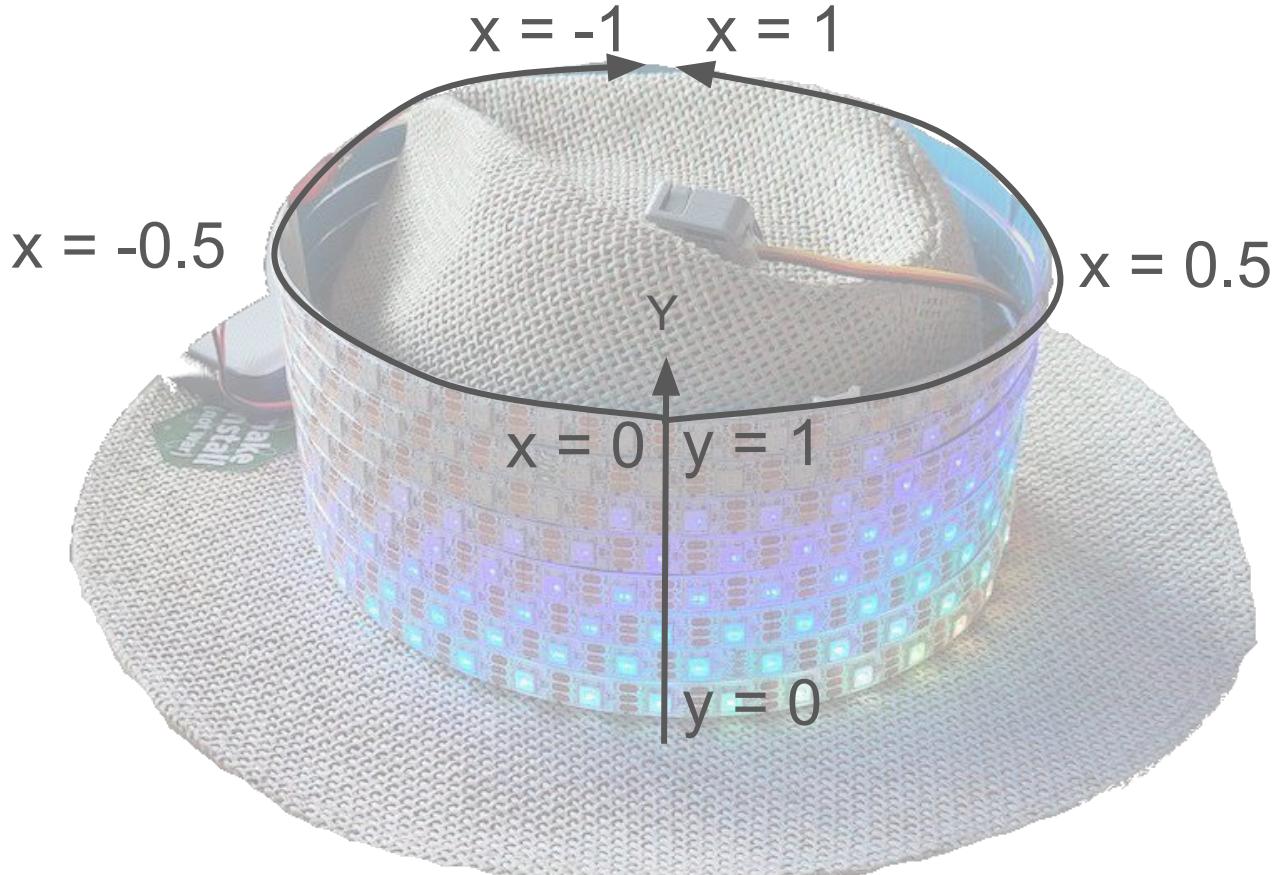


LLM Prompting

Micro-optimizations

Pixel-fonts...

Demo



Challenge #0: Have it Used!



<https://led-hat.ineiti.ch>