# Joshua De Matas

## **Golang Engineer**

https://www.joshuadematas.me

Jönköping, Sweden https://github.com/tifye dematasjoshua@hotmail.com



## Summary

I've built backend platforms, HTTP tunnels over SSH, and CLI tools across varied domains. My broad engineering perspective helps me design efficient, maintainable systems. I focus on performance, clarity, and building tools that empower developers.

## **Projects**

## BURNR - Tech Lead and Backend Developer

A social fitness platform built primarily in Go.

- Led backend design, service boundaries, and tech stack decisions.
- · Designed hybrid storage using PostgreSQL, Firestore, and Cloud Storage.
- Integrated Apple Health syncing and leaderboard ranking based on user goals.
- Upgraded caching and pub/sub with Dragonfly and Redpanda.
- Deployed backend on self-hosted VPS using Docker Stack/Swarm.

#### Garden Observer — Real-time 3D Robot Visualization

A full-stack web app to monitor live and simulated robot lawnmowers in 3D.

- Combined Unity Wasm for 3D rendering with Blazor for UI and control layer.
- Parsed SVG layouts to generate meshes for 3D environments.
- Used an internal event hub for real-time robot telemetry, updating position in 3D space.
- Created a Blazor-to-Unity component bridge (akin to custom React renderer).

#### Coconut - SSH HTTP Tunnel

An HTTP tunnel over SSH in Go (similar to Ngrok), using only standard libraries.

- Designed reverse proxy routing based on subdomains and SSH channels.
- Added multiplexed and dedicated tunnels to handle websockets and long-lived connections.
- Integrated Apple Health syncing and leaderboard ranking based on user goals.
- Currently building a production-ready version with full monitoring and tests.

### Cinnamon – Media Stashing Server and Extension

Created a self-hosted service to capture and store HLS video streams.

- Built a Go backend using FFmpeg to convert and stash videos.
- Integrated MinIO (S3 compatible) storage and built a lightweight web UI.
- Developed a custom browser protocol (cinnamon://) to launch downloads from the web.

## References

#### Tommy Gustavsson, Software Architect

tommy.gustavsson@husqvarnagroup.com +46 725877027

Husqvarna Group, Work/character reference (prefers email first)

# Thomas Jansson, Lead Senior Software Engineer

thomas.jh.jansson@protonmail.com

<u>LinkedIn</u>

+46 708149315

Husqvarna Group, Work reference

#### Malin Janrup, Technical Project Manager

malin.jernrup@husqvarnagroup.com

**LinkedIn** 

Husqvarna Group, Character reference

# **Experience**

#### Tech Lead, Software Engineer

**BURNR** 

2024 - Now Remote

A founder and tech lead of fitness oriented social media app BURNR.

#### **Software Engineer**

Husqvarna Group, Robotics R&D 2022 - 2024 Huskvarna, Sweden

Husqvarna Group's Robotics R&D department to developing simulation software and internal tooling.

#### Software Engineer

Jönköping University, ROL Ergo 2021 Jönköping, Sweden

Hired by contract through the university to work with ROL Ergo on a research project.

#### Laboratory Engineer

Jönköping University 2020 - 2022 Jönköping, Sweden

Hired by the university to support teaching and mentoring in 8+ engineering courses; provided paid assistance to students with labs, technical exercises, and coursework.