Joshua De Matas

Golang Engineer

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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.

Noteworthy projects

BURNR — Tech Lead and Backend Engineer

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 — Reverse proxy 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.

Explore more of my work at joshuadematas.me.

References

Tommy Gustavsson, Software Architect

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+46 725877027
Husqvarna Group, Work/character reference (prefers email first)

Thomas Jansson, Lead Senior Software Engineer

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Husqvarna Group, Work reference

Malin Janrup, Technical Project Manager

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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 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.

Technical skills

Go Docker GCP Terraform PostgreSQL Redis React Redpanda OpenTelemetry C#
Sqlite Unity Javascript S3 storage Github SQL

Education

B.S. Computer Science
Jönköping University
2019 - 2022 Jönköping, Sweden

Scholarship

Jönköping University
Selected to compete in a coding challenge among the top-performing students at Jönköping University, where I won a scholarship of 15,000 Kr. The challenge involved creating a full-stack admin system, which I developed using React, Node.js NestJS, Redis, and PostgreSQL.