# 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
- 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.

### 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

LinkedIn

+46 708149315

Husqvarna Group, Work reference

#### Malin Janrup, Technical Project Manager

malin.jernrup@husqvarnagroup.com LinkedIn

Husqvarna Group, Character reference

### Technical skills

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

### **Hobbies**

Programming, digital games, and board games. I enjoy making random programs and exploring solutions. Recently I've been falling in love with going under the hood of technologies I used and learn the inner workings of things.

Visit my

GitHub too many unfinished projects

# Digital notebook it's a bit messy

# Portfolio to see more projects

# LinkedIn

CV again for whatever reason

# **Experience**

Programming since 2015, professional since 2020. I treat software engineering as both a craft and a pastime.	
Tech Lead, Software Engineer	Go GCP Pub/Sub Redis Firestore PostgreSQL Terraform
BURNR	Grafana Prometheus OpenTelemetry
2024 - Now Remote	Grant Communication of the Com
• Leading a small team in building	a robust platform.
• Primarily built around GCP using	Terraform.
Utilizing simulation testing and t	esting using Testcontainers.
Software Engineer	Go Azure Unity DotNet C# Blazor Algorithms
Husqvarna Group, Robotics R&D	
2022 - 2024 Huskvarna, Sweden	
Initially began work on simulation	n software in Unity.
• Later positioned as an internal p	roject incubator, successfully leading four projects from ideastion through execution to launch.
Developed many other tools alor	ng side alleviating many internal pain points.
<ul> <li>Kept high standard of wokring in linear algebra, CLI tools, backend</li> </ul>	a wide range of areas: Blazor, 3D web, Azure Cloud, the nitty-gritty of algorithm optimization and d and APIs.
Software Engineer	PostgreSQL NodeJS Express.js Vue Socket.IO
Jönköping University, ROL Ergo	
2021 Jönköping, Sweden	
Collected heat and motion sense	or data that was visualized in a web Ul.
Enhanced sensor data usability I	by processing over 15 sensors in real time.
Laboratory Engineer	Docker AWS Go Swift C++ NodeJS SQL
Jönköping University	
2020 - 2022 Jönköping, Sweden	
• Wrote guides on Docker, MS SQL	, and iOS.
• Led classes of over 25 students,	providing guidance and support throughout two years of their studies.
Worked with topics including dat iOS development, networking pro	abases, data structures & algorithms, object-oriented programming, NodeJS web development ogramming, and more.
I'm deeply excited about programming	— for me, it's more than a job. I love building systems that are useful, durable, and a joy to maintain.
Education	Scholarship
B.S. Computer Science	Jönköping University  Selected to compete in a coding challenge among the top, performing at udente at Lönköping University

<u>Jönköping University</u> 2019 - 2022 Jönköping, Sweden 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.