

# Joshua De Matas

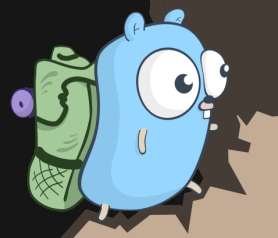
## Software Engineer

<https://www.joshuadematas.me>

Jönköping, Sweden

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## Summary

Operating at a **senior level** — leading projects, designing architecture, and building tools across domains. I've built backend platforms, SSH-based HTTP tunnels, and CLI tools. My broad engineering perspective helps me create efficient, maintainable systems focused on performance, clarity, and developer experience.

## 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](https://www.joshuadematas.me).

## References

### Tommy Gustavsson, Software Architect

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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

## 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 learning the inner workings of things.

Visit my

**GitHub** it's green

**Digital notebook** very casual

**Portfolio** read about 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, Senior Software Engineer

BURNR

2024 - Now Remote

Go

GCP

Pub/Sub

Redis

Firestore

PostgreSQL

Terraform

Grafana

Prometheus

OpenTelemetry

- Leading a small team in building a robust platform.
- Primarily built around GCP using Terraform.
- Utilizing simulation testing and testing using Testcontainers.
- Mentoring two junior engineers, supporting their growth through code reviews, architectural discussions, and pair programming.

## Software Engineer

Husqvarna Group, Robotics R&D

2022 - 2024 Huskvarna, Sweden

Go

Azure

Unity

DotNet

C#

Blazor

Algorithms

- Initially began work on simulation software in Unity.
- Later positioned as an internal project incubator, successfully leading four projects from ideation through execution to launch.
- Developed many other tools along side alleviating many internal pain points.
- Kept high standard of working in a wide range of areas: Blazor, 3D web, Azure Cloud, the nitty-gritty of algorithm optimization and linear algebra, CLI tools, backend and APIs.

## Software Engineer

Jönköping University, ROL Ergo

2021 Jönköping, Sweden

PostgreSQL

NodeJS

Express.js

Vue

Socket.IO

- Collected heat and motion sensor data that was visualized in a web UI.
- Enhanced sensor data usability by processing over 15 sensors in real time.

## Laboratory Engineer

Jönköping University

2020 - 2022 Jönköping, Sweden

Docker

AWS

Go

Swift

C++

NodeJS

SQL

- 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 databases, data structures & algorithms, object-oriented programming, NodeJS web development, iOS development, networking programming, 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

## 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.