Joshua De Matas

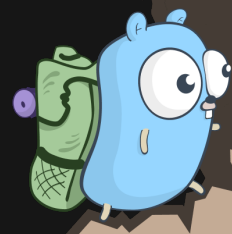## Software Engineer

https://www.joshuademattas.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 tunnels, and CLI tools. My engineering perspective helps me create systems that are efficient, maintainable, and empowering for 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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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. Lately, I've been diving deeper into the internals of the tools I use — exploring how things really work.

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. Software engineering is both my profession and creative outlet.

Tech Lead, Senior Software Engineer

| Go | GCP | Pub/Sub | Redis | Firestore | PostgreSQL | Terraform |
| Grafana | Prometheus | OpenTelemetry |

BURNR

2024 - Now   Remote

- 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

| Go | Azure | Unity | DotNet | C# | Blazor | Algorithms |

Husqvarna Group, Robotics R&D

2022 - 2024   Huskvarna, Sweden

- 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 internal tools that resolved key pain points and improved workflows across teams.
- 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

| PostgreSQL | NodeJS | Express.js | Vue | Socket.IO |

Jönköping University, ROL Ergo

2021   Jönköping, Sweden

- 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

| Docker | AWS | Go | Swift | C++ | NodeJS | SQL |

Jönköping University

2020 - 2022   Jönköping, Sweden

- Wrote guides on Docker, MS SQL, and iOS.
- Mentored over 25 students across two academic years.
- Covered 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.