Joshua De Matas

Software Engineer

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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, always with a focus on performance, clarity, and maintainability.

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 — SSH-Based 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.
- Currently building a production-ready version with full monitoring and tests.

Cinnamon — Self-Hosted Media Server

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

tommy.gustavsson@husqvarnagroup.com
+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

Technical skills

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

Hobbies

Programming, digital games, board games, and sometimes art.

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.

Currently exploring

I am currently exploring Deterministic Simulation Testing, a concept I first encountered through TigerBeetle. The talk Testing Distributed Systems w/ Deterministic Simulation sparked my interest and offers great insights.

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.
- Using simulation-based and Testcontainers-driven testing to validate system behavior.
- 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

- Started with simulation software in Unity, then moved into broader R&D tooling.
- Later positioned as an internal project incubator and successfully led four projects from concept through implementation and launch.
- Developed internal tools that resolved key pain points and improved workflows across teams.
- Maintained a high standard across diverse domains — from Blazor and 3D web to Azure, algorithm optimization, CLI tools, and backend services.

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

- Created technical guides on Docker, MS SQL, and iOS development used in student instruction.
- Mentored over 25 students across two academic years.
- Taught subjects such as databases, data structures and algorithms, OOP, Node.js development, iOS development, and network programming.

I'm deeply excited about programming — it's more than a job; it's what I do for fun. 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

Chosen as one of the top-performing students to compete in a coding challenge at Jönköping University. Awarded a 15,000 SEK scholarship for building a full-stack admin system with React, Node.js (NestJS), Redis, and PostgreSQL.