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-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.

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. 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

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 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

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.
- 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.