Marek Filip

Software Team Lead · ex-Red Hat · Secure on-prem software & private AI

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SUMMARY

I build and lead software that has to work where the data can't leave the building. Open to select projects.

Software team lead who has built production software since 2020, at Red Hat and on government and defense projects. At Red Hat I went from intern to senior software engineer in 3 years and 8 months, working on RHEL in-place upgrade tooling, and I hold the RHCSA and RHCE certifications. Since 2024 I have led a team at EOS Applications building a data platform for electronic warfare that customers run on their own premises.

WHAT I'M GOOD AT

Python & Django. Large, long-lived applications with Celery, Channels, PostgreSQL/PostGIS and ClickHouse.

Frontends for data-heavy tools. React and TypeScript: maps, filters, dashboards and reports.

Linux & delivery. Docker/Podman, Ansible, CI/CD and releases for self-hosted and air-gapped deployments.

Messy data. Binary protocols, legacy imports and migrations that must not lose a record.

Private AI. LLM features and agents that run on local models when the data can't go to the cloud.

Leading a small team. Planning, code review, mentoring and talking to customers.

EXPERIENCE

Software Team Lead, EOS Applications

Jan 2024 – Present

Contract

I lead a software team at a Czech defense software company and develop its data platform for electronic warfare and the products around it.

- Top contributor to the main product, with 1,400+ commits since 2023: Django 5, DRF, Celery, Channels, PostgreSQL/PostGIS, ClickHouse with Polars, and a React frontend.
- Built tools for data mining, emitter, target and mission work, an import pipeline for ASTERIX radar data with a Go decoder, a self-hosted map tileserver and legacy data migrations.
- Own the release pipeline (GitHub Actions, Cypress end-to-end tests, Dokploy) for on-premise and offline customer deployments.
- Work on a signal and aircraft-track analysis product (FastAPI, React, TypeScript) and an LLM-driven OSINT platform.
- Administer the company's GitHub Enterprise and ran the Copilot rollout with a full audit-log review; set up EU-only, zero-data-retention routing for the team's other LLM providers.

Senior Software Engineer, Nyx Applications

Jul 2023 – Dec 2023

Contract · Remote

Python and Django contract work.

Senior Software Engineer, CoolPeople

Nov 2022 – Jun 2023

Contract · Remote

Python and Django contractor on a government project.

Red Hat
Brno, Czech Republic

Feb 2020 – Jan 2024

Software Engineer Intern
Feb 2020 · part-time

Associate Software Engineer
Feb 2021 · part-time

Software Engineer
Jan 2022 · part-time

Software Engineer
Dec 2022 · full-time

Senior Software Engineer
Oct 2023 · full-time

From intern to senior software engineer in 3 years and 8 months, part-time through my bachelor's studies and then full-time, in the RHEL Upgrades team.

- Worked on the tooling behind RHEL in-place upgrades (Leapp) and brought upgrades to cloud customers through the Red Hat Insights console, with Ansible playbooks that mirror the CLI tool.
- Built Django and React internal tools, GitHub bots, Ansible automation and GitLab CI/CD pipelines; ran services on OpenShift with Podman containers.
- Led team meetings and planning, and mentored newer colleagues.
- Wrote “What are RHEL in-place upgrades?” for the official Red Hat blog.

EDUCATION

Bachelor's degree, Computer Science
2019 – 2022

Brno University of Technology, Faculty of Information Technology

Thesis: “Adaptive Trading Strategies for Cryptocurrencies”. I built a backtester and a Bitcoin risk metric; the adaptive strategies beat HODL and rebalancing more than threefold under the right conditions.
The degree gave me the software engineering theory I now put into practice.

Master's studies, Software Engineering
2022 – 2023

Masaryk University, Faculty of Informatics

Took soft-skills courses that later helped me lead a team. Left to focus on professional work.

CERTIFICATIONS & LANGUAGES

Red Hat Certified System Administrator (RHCSA, 2023) · Red Hat Certified Engineer (RHCE, 2023)

Czech (native) · English (fluent)

WRITING

What are RHEL in-place upgrades?
13 Feb 2023

Red Hat Blog

How to C for beginners
27 Sep 2020

Personal blog, 2020–2021

SELECTED PROJECTS

Adaptive trading backtester
2022

Python backtester and Bitcoin risk metric that compares adaptive crypto strategies with HODL.

EuroPython 2024 AI tournament bot
2024

Routing bot for the sailing-race tournament at EuroPython 2024, written with a colleague there.

Advent of Code
2019–2023

Four Decembers of puzzles: 2019 in C, then 2020, 2021 and 2023 in Python.

Games
2017–2020

The games I built while learning to program, in JavaScript, Unity and Godot. Playable on this site.