Robert Schäfer

FULL STACK DEVELOPER

Freelance full stack developer working remotely across web applications, product engineering, and infrastructure, with additional investment in open source. Focus areas include maintainable software, strong test coverage, and modernizing fragile systems by simplifying delivery and operations while strengthening quality through reliable collaboration, code reviews, pair programming, and technical mentoring.

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EXPERIENCE

Bo*bH**, Remote observatory

Full Stack Developer Mar 2026 - Present

With this platform for remotely controlling telescopes through the astrophotography software NINA, deep-sky imaging gets accessible without owning expensive hardware or the expertise to operate it. Users select an astronomical target and book observation time; the application sends imaging sequences to NINA via Tailscale, which executes them overnight and delivers the results. The core challenge is turning a Windows-only, inherently interactive application into a fully autonomous pipeline.

TypeScript ▪ Nuxt ▪ Vue ▪ Fly.io ▪ Docker ▪ AWS

ta*bH**, AI interview platform

Full Stack Developer Mar 2026 - Present

This SvelteKit application for AI-assisted interviews and editorial publishing replaces brittle infrastructure spread across Airtable, Voiceflow, and additional custom services with a single serverless application. Using the built-in workflows of ElevenLabs AI Agents significantly reduces maintenance overhead and complexity while improving the phone agent's response time by several seconds, which is crucial for a good user experience.

TypeScript ▪ Svelte ▪ SvelteKit ▪ Tailwind ▪ Better Auth ▪ Drizzle ORM

bu*V.**, FOSS social network

Infrastructure Engineer Oct 2024 - Nov 2025

Migrated assets from a Kubernetes volume to S3-compatible object storage to reduce deployment complexity and cost. Rebuilt the infrastructure with Terraform and sops, and moved from a managed Kubernetes cluster on Digital Ocean to a self-hosted Kubernetes cluster on Hetzner, cutting monthly costs by 80%.

TypeScript ▪ Vue ▪ Nuxt ▪ Terraform ▪ sops ▪ Kubernetes

***, Founder network

Full Stack Developer Jun 2024 - Jun 2025

For this free and open-source social platform for entrepreneurs, the delivery and infrastructure architecture was fundamentally reworked after deployments had previously been performed manually via a remote desktop on the target server, regularly causing downtime. Moving the project to a self-managed Kubernetes setup on Hetzner with Terraform gave every developer production-like test environments for their own branches while keeping operating costs extremely low at under 20 euros per month.

TypeScript ▪ Docker ▪ Vue ▪ Vike ▪ Vuetify ▪ Jest

Jo*er**, Booking website for a holiday apartment

Full Stack Developer Jan 2022 - Aug 2022

Built a booking website with calendar integration for a holiday apartment on Norderney. Day-by-day availability is maintained in Google Calendar and synchronized to the site via Google APIs.

TypeScript ▪ Netlify ▪ Svelte ▪ SvelteKit ▪ Tailwind

Jo*er**, SvelteKit relaunch

Full Stack Developer Dec 2021 - Jun 2023

Rebuilt a retail client's website with SvelteKit and Hygraph and deployed it statically on Netlify. Server-side logic runs in serverless functions, and content is loaded from the headless CMS via GraphQL. The relaunch improved performance, SEO, and maintainability.

TypeScript ▪ Svelte ▪ SvelteKit ▪ HyGraph ▪ Netlify ▪ Serverless

au*bH**, Auto parts price comparison

Full Stack Developer Jun 2021 - Sep 2023

For this software for the automotive aftermarket that helps repair shops compare prices across wholesalers, an Electron desktop application was migrated to a cloud-based platform on Google Cloud, Auth0, and Hasura. This significantly improved software quality and increased the number of connected wholesalers from 3 to 240.

TypeScript ▪ Docker ▪ Vue ▪ Tailwind ▪ Jest ▪ Testing-Library

Jo*er**, Booking system for continuing education providers

Full Stack Developer May 2021 - Dec 2022

Built a custom booking system for a continuing education provider. The solution includes email confirmations, waiting lists, and an implementation based on SvelteKit with Hygraph as the headless CMS.

TypeScript ▪ Netlify ▪ Svelte ▪ SvelteKit ▪ Tailwind

Jo*er**, Booking system for course providers

Full Stack Developer Aug 2020 - May 2023

Built a custom booking system for a course provider's sewing classes and integrated it into their website. Courses for adults, teens, and children can be managed online, including registration and waiting lists.

TypeScript ▪ Netlify ▪ Vue ▪ Nuxt ▪ HyGraph

ta*bH**, Newsroom dialog

Full Stack Developer Mar 2020 - Apr 2025

For this platform for audience engagement and crowd-based reporting in journalism, the Ruby on Rails application integrates messengers such as WhatsApp, Telegram, Signal, Threema, and email, allowing editorial teams to reach people through channels they already use. Its core differentiator is a direct 1:1 conversation between journalists and their audience, turning a newsroom's own community into a valuable asset for reporting and research.

Ruby ▪ TypeScript ▪ Ruby on Rails ▪ RSpec ▪ Stimulus ▪ Docker

ta*bH**, Bee sensor stories

Full Stack Developer Mar 2019 - May 2019

Building on an earlier journalistic sensor-data project, the platform was reused and extended for a new format. Reports were generated automatically from sensor data collected from three beehives. The project was nominated for the Grimme Online Award and won the German Reporter Award.

Ruby ▪ Ruby on Rails ▪ RSpec ▪ Cucumber

Hu*bH**, FOSS social network

Technical Lead Nov 2018 - Apr 2020

Technical Lead work on product architecture, GraphQL APIs, production use of Neo4J, and Kubernetes-based operations for a community-built open-source social network that offers communities a privacy-friendly alternative to large platforms. The project grew to around 80 code contributors on GitHub; newcomers were onboarded through GitHub, Discord, and online pair programming, mentored directly, and most contributions were reviewed. Neo4J ran in production as the primary database to model the network's social graph directly.

JavaScript ▪ Jest ▪ Vue ▪ Nuxt ▪ Storybook ▪ Cypress

So*AG**, Custom CMS platform

Full Stack Developer Apr 2018 - Jun 2018

Custom CMS development for the company website with a focus on maintainability and search engine optimization.

Wordpress ▪ PHP ▪ Docker

ta*bH**, Smart bathroom mirror

IoT Developer Jan 2018 - Jan 2018

Rapid IoT prototype of a smart bathroom mirror and cabinet built with Raspberry Pis, Arduinos, and MQTT.

Python ▪ JavaScript ▪ MQTT

ta*bH**, Smart shopping cart

IoT Developer Jun 2017 - Jun 2017

Rapid IoT prototype of a smart shopping cart.

Ember ▪ Python

ta*bH**, Dairy cow sensor stories

Full Stack Developer May 2016 - Oct 2017

For WDR and Spiegel Online, a journalistic format generated reports automatically from sensor data collected from three dairy cows. The project received broad media attention with more than 63 reports and features.

Ruby on Rails ▪ Ruby ▪ RSpec ▪ Cucumber

Press: Spiegel Online

***, Automated Risk Analysis in Supply Chains

Research Intern Oct 2013 - Nov 2013

Built a tool for automated risk analysis in supply chains, working with an existing legacy codebase.

OX*AG**, Web application for sports associations

Full Stack Developer Apr 2013 - Sep 2013

First developer to introduce an automated test environment for this web application for officials, referees, and coaches.

Ruby ▪ Ruby on Rails ▪ RSpec ▪ Cucumber ▪ PostgreSQL

Hasso Plattner Institute, Enterprise programming models for in-memory databases

Researcher Jan 2012 - Aug 2012

Implementation of a business process and web application as specified by SAP as a use case for the HANA in-memory database.

Java

MENTORING AND TEACHING

Hochschule für Technik und Wirtschaft Berlin, Systems-Development and Framework

University Lecturer Oct 2019 - Mar 2021

Owned a master's course on full stack development with around 40 students, including curriculum, teaching, and grading. Topics included functional programming, advanced Git, test-driven development, and code reviews on GitHub. All lectures are publicly available on YouTube.

JavaScript ▪ Vue ▪ Apollo GraphQL ▪ Neo4J ▪ Nuxt ▪ Vuetify

MIZ Babelsberg, Protothon

Hackathon Coach Sep 2016 - Sep 2016

Coached a team at MIZ Babelsberg's Protothon rapid-prototyping hackathon that built an interactive, decision-based podcast prototype.

JavaScript

MIZ Babelsberg, Protothon

Hackathon Coach Aug 2016 - Aug 2016

Coached a team at MIZ Babelsberg's Protothon rapid-prototyping hackathon that built a location-aware music player prototype.

JavaScript

MIZ Babelsberg, Rubies in the woods

Programming Mentor Sep 2015 - Nov 2018

Mentored a beginner-friendly programming group through weekly sessions focused on diversity and low-barrier access to learning how to code.

Ruby

MIZ Babelsberg, #ursuppe

Hackathon Coach Aug 2015 - Aug 2015

Coached the team behind #ursuppe, an IoT prototype that automatically generated a live journalism report from a biological experiment tracking brine shrimp. Winner of the MIZ Formatfestival 2015.

OPEN SOURCE AND CIVIC WORK

Robert Schäfer, git-subtrees

Development Sep 2026 - Present

A Git extension that keeps multiple git subtrees in a monorepo in sync with their own repositories. It needs no config file: every remote named after a folder path is a subtree. The documentation consists of tested example scenarios.

Bash ▪ Bats ▪ Nix

Robert Schäfer, hledger-document-check

Development Mar 2026 - Present

A Plain Text Accounting command-line tool for checking documents with hledger. It reconciles transactions that require documentation with files on disk, detects missing or unbooked documents, checks amount plausibility, and generates an enriched journal for Fava's document view.

Rust ▪ hledger ▪ Cucumber

Robert Schäfer, hledger-elster

Development Mar 2026 - Present

A Plain Text Accounting command-line tool for hledger that automates German tax filing. It reads transactions from the journal and generates traceable exports for the corresponding forms on ELSTER.de. The exports are available in CSV and XLSX format and include derivations that tax authorities can audit.

Rust ▪ hledger ▪ Cucumber

Robert Schäfer, roschaefer.de

Design and Development Mar 2026 - Present

Personal portfolio website and print-optimized resume built from a shared content source. The project combines a bilingual SvelteKit frontend, PDF generation with Typst, and standards-compliant `resume.json` into an accessible, privacy-conscious experience for web and print.

TypeScript ▪ Svelte ▪ SvelteKit ▪ Tailwind ▪ Paraglide ▪ Typst

Rundfunk mitbestimmen e.V., Rundfunk mitbestimmen

Founder Aug 2016 - Mar 2019

"Rundfunk mitbestimmen" is a civic tech project that lets people symbolically influence how public broadcasting fees are allocated. Users can assign their contributions to individual programs. The project was covered by Zeit Online, Netzpolitik.org, Deutschlandfunk, and RBB.

Ember ▪ Ruby on Rails ▪ Auth0 ▪ D3 ▪ Highcharts ▪ Uberspace

Press: Zeit Online , Netzpolitik.org , Deutschlandfunk , RBB

TECHNOLOGIES

Docker

8 years 7 projects

Current

Vue

7 years 7 projects

Current

TypeScript

6½ years 11 projects

Current

Nuxt

6½ years 5 projects

Current

Sentry

5¾ years 2 projects

Current

PostgreSQL

5 years 4 projects

Current

Tailwind

4½ years 7 projects

Current

Netlify

3½ years 6 projects

Current

Cucumber

3 years 6 projects

Current

Svelte

2¾ years 5 projects

Current

SvelteKit

2¾ years 5 projects

Current

Serverless

2¼ years 2 projects

Current

Terraform

2¼ years 3 projects

Current

Playwright

8 months 3 projects

Current

hledger

8 months 2 projects

Current

Rust

8 months 2 projects

Current

Vitest

8 months 2 projects

Current

AWS

8 months 1 project

Current

Better Auth

8 months 1 project

Current

Drizzle ORM

8 months 1 project

Current

ElevenLabs

8 months 1 project

Current

Fly.io

8 months 1 project

Current

Infisical

8 months 1 project

Current

Neon DB

8 months 1 project

Current

NINA

8 months 1 project

Current

Paraglide

8 months 1 project

Current

Tailscale

8 months 1 project

Current

Typst

8 months 1 project

Current

Bash

2 months 1 project

Current

Bats

2 months 1 project

Current

Nix

2 months 1 project

Current

Digital Ocean

7 years 3 projects

11 months ago

Kubernetes

3 years 3 projects

11 months ago

Hetzner

1½ years 2 projects

11 months ago

S3

1¼ years 1 project

11 months ago

sops

1¼ years 1 project

11 months ago

Apollo GraphQL

5¾ years 4 projects

Jun 2025

Jest

5 years 3 projects

Jun 2025

Vuetify

2½ years 2 projects

Jun 2025

Authentik

1 year 1 project

Jun 2025

Helm

1 year 1 project

Jun 2025

Vike

1 year 1 project

Jun 2025

Ruby

9¼ years 5 projects

Apr 2025

Ruby on Rails

8¾ years 5 projects

Apr 2025

RSpec

7½ years 4 projects

Apr 2025

Ansible

5¼ years 1 project

Apr 2025

Postmark

5¼ years 1 project

Apr 2025

Stimulus

5¼ years 1 project

Apr 2025

Auth0

5 years 2 projects

Sep 2023

Google Cloud

2¼ years 1 project

Sep 2023

Hasura

2¼ years 1 project

Sep 2023

Testing-Library

2¼ years 1 project

Sep 2023

Vercel

2¼ years 1 project

Sep 2023

HyGraph

3 years 2 projects

Jun 2023

JavaScript

2¾ years 5 projects

Mar 2021

Neo4J

2½ years 2 projects

Mar 2021

Cypress

1½ years 1 project

Apr 2020

Storybook

1½ years 1 project

Apr 2020

Ember

2¾ years 2 projects

Mar 2019

D3

2¾ years 1 project

Mar 2019

Highcharts

2¾ years 1 project

Mar 2019

Uberspace

2¾ years 1 project

Mar 2019

PHP

3 months 1 project

Jun 2018

Wordpress

3 months 1 project

Jun 2018

Python

2 months 2 projects

Jan 2018

MQTT

1 month 1 project

Jan 2018

Java

8 months 1 project

Aug 2012

SELECTED TALKS

Find open-source contributors in online learner communities

Vue.js Berlin Meetup Jan 2020

Using Neo4J and GraphQL to build Human Connection

Neo4J Online Meetup Jun 2019

Find open-source contributors in online learner communities

35th Chaos Communication Congress Dec 2018

LANGUAGES

German

Native Speaker

English

Business Fluent

Spanish

Fluent

EDUCATION

Master of Science, IT-Systems Engineering

Hasso Plattner Institute Oct 2014 - Mar 2018

1.6

Bachelor of Science, IT-Systems Engineering

Hasso Plattner Institute Sep 2009 - Jul 2012

1.7

Abitur

Gymnasium Lohmar Aug 1999 - Jun 2008

PROFILES

LinkedIn

roschaefer.de/linkedin

Github

roschaefer.de/github

YouTube

roschaefer.de/youtube

Mastodon

roschaefer.de/mastodon

AWARDS

Grimme Online Award (nominated)

Grimme-Institut Jun 2020

Bee sensor stories

German Reporter Award 2019

Reporter-Forum e. V. Dec 2019

Bee sensor stories

German Reporter Award 2017 (nominated)

Reporter-Forum e. V. Dec 2017

Dairy cow sensor stories

Winner of MIZ Formatfestival 2015

MIZ Babelsberg Nov 2015

#ursuppe