Dirk Matthias Rudolf

Freelance TypeScript Full-Stack Engineer

Freelance since 2007

Technical Director, meta.morph Medien GmbH, 2011–2015

Diplom-Informatiker (FH)
Master of Science

Location	Berlin
LinkedIn	linkedin.com/in/dirk-matthias-rudolf
GitHub	github.com/drudolf
Languages	German (Native) English (Fluent)

Independent TypeScript full-stack engineering since 2007, focused on scalable web applications, API design, and database architecture. Integrating AI tooling and MCP into development processes, grounded in video and streaming development. Technically accountable end to end, as solo engineer or technical project lead.

SKILLS

Web Development	Video & Streaming	Technical Project Management
TypeScript	Samsung (Tizen, Orsay)	AI Tooling / MCP
React	LG (webOS, NetCast)	Agile Methods (Scrum, Kanban)
Node.js / Fastify	HbbTV	Test-Driven Development
Prisma / PostgreSQL	Cross-Platform	Continuous Integration

PROJECTS

2023–2026

Web Development — Full-Stack

Modular full-stack tool suite for managing creatives, publishers, and targeting, from database schema and API design through to SPA architecture. Built with TypeScript, React, Node.js, Fastify, Prisma, and PostgreSQL.

Live TV Application — Frontend

Held full technical ownership of a live-TV application for Tizen and webOS, from architecture through delivery. Built with TypeScript and HLS.js.

2020–2023

Media Library — Full-Stack

Extended a media library across HbbTV, Tizen, webOS, NetCast, Orsay, and other platforms: device-specific debugging, platform updates, and new features through to release.

Media Library (Rebuild) — Full-Stack

Rebuilt the entire stack in TypeScript, React, and Node.js, rolling out across HbbTV, Samsung (Tizen), LG (webOS), Panasonic, Philips, Sony, Foxxum, and Hisense.

Delivered a single TypeScript/React codebase with manufacturer-specific adaptations for eight manufacturers, covering DASH live streams with timeshift, VOD, subtitles, and multi-track audio. Verified through testing on physical devices and cross-platform Jest regression tests.

2015–2020

Streaming Platform — Frontend

Led the port of a live streaming application to Samsung (Orsay, Tizen) and LG (NetCast, webOS) using JavaScript, Backbone.js, and DASH/HLS.

Streaming Platform (Rebuild) — Frontend

Rebuilt as a TypeScript/React platform serving eight brands across five TV platforms (Tizen, webOS, Panasonic, set-top box, and others).

Delivered a shared TypeScript/React codebase for eight manufacturers, with 5-key navigation and focus management in React, performant DASH playback across all platforms, and unified handling of diverse client requirements.

OPEN SOURCE

prisma-pglite-bridge

Library for fast, reliable database testing with Prisma and PGlite

Isolated Prisma database tests without Docker or an external database server. PGlite replaces PostgreSQL in-process, compatible with Vitest and Jest.

fastify-lor-zod

Type provider for the Fastify API framework with Zod schema validation

End-to-end type-safe validation of requests and responses, with automatic API documentation (OpenAPI/Swagger) from a single shared schema definition. Rewritten in TypeScript with full Zod v4 support and improved OpenAPI export.