

DAYAN RODRIGUEZ

SOFTWARE ENGINEER

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PROFILE	Systems-focused software engineer with nearly a decade of independent programming work. Current projects span emulation, language runtimes, build systems, debugging, and native interfaces. Seeking a software engineering role where I can bring strong systems and tooling experience to production software while growing through code review, collaboration, and real-world ownership. Authorized to work in the United States without sponsorship		
TECHNICAL SKILLS	Languages	C, elf; working familiarity with JavaScript and SQL; earlier project work in TypeScript, Java, and Kotlin	
	Systems and tools	Git, Win32, D3D11, compiler and VM architecture, emulation, memory management, debugging	
	Web and data	SvelteKit, Node.js, PostgreSQL, REST/JSON, Vercel	
	Earlier platforms	Angular, Android, Firebase, JitPack	
EXPERIENCE	Freelance frontend developer – Independent client work		2019-present
	Remote		
	Built several paid frontend prototypes for an online client, including product and catalogue interfaces for mobile-accessory and spirits businesses.		
	- Developed responsive interfaces using Angular, TypeScript, JavaScript, HTML, and CSS. - Implemented client-side routing, reusable components and services, catalogue loading and filtering, and shopping-cart interactions.		
	Upholsterer – Family business		2021-present
	Tampa, Florida		
	Complete customer upholstery jobs in a small family-run business, solving practical problems and carrying work from requirements through delivery.		
	Perform hands-on production work, resolve practical job-specific problems, and help carry customer work through completion.		
INDEPENDENT ENGINEERING PROJECTS	Orbiter – NES emulator and introspective debugger		2024-present
	C / Win32 / D3D11		
	- Evolved a multi-year NES emulator project into a Windows debugger with live disassembly, hardware inspection, execution tracing, profiling, control-flow hit counts, breakpoints, and deterministic rewind. - Separated emulator execution, debugger state, and the D3D11 interface behind explicit APIs, with automated snapshot-restore and determinism tests.		
	LeakCheck – Deployed revenue-reconciliation prototype		2026-present
	JavaScript / SvelteKit / PostgreSQL / Vercel		
	- Built and deployed a full-stack learning prototype that reconciles completed CRM jobs with accounting invoices and produces traceable revenue-risk findings. - Used the project to develop foundational knowledge of SvelteKit, PostgreSQL schemas and queries, REST/JSON data flow, dataset validation, and deployment.		
	Android interface libraries – Published Android graphics libraries		2019-2022
	Java / Kotlin / Android / JitPack		
	Published a configurable superellipse renderer through JitPack (37 GitHub stars and 9 forks) and built a Kotlin audio-visualization library with capture, parsing, scheduling, and renderer layers.		
	elf – Embeddable C-like scripting language		2023-present
	C / Compiler / Bytecode VM		
	- Designed and implemented a lexer, source-located AST, IR lowering, bytecode backend, slot-based VM, closures, garbage collection, and a native C API. - Created a contiguous table model with open-addressed key-to-index bindings; elf runs real Bob build descriptions and Orbiter configuration.		
	Bob – Programmable incremental build system		2026-present
	C / elf / BLAKE3		
	Built a dependency-graph scheduler with parallel task execution, compiler-discovered dependencies, BLAKE3 fingerprints, persistent incremental state, and explainable rebuild decisions.		
	Apollo – From-scratch Windows text editor		2026-present
	C / Win32 / D3D11		
	Built file-backed buffers, multi-cursor editing, fuzzy search, custom font rasterization, and a purpose-built D3D11 interface.		