

Trevor Reece Vorhees

Systems & Developer Tools Software Engineer

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TECHNICAL SKILLS

Languages: Rust, Python, C, SQL, TypeScript, JavaScript, VBA

Systems & DevTools: Linux (ALSA, Kernel Patch Workflow), Tauri, REST APIs, WebSockets, Model Context Protocol (MCP), Git

Reliability & Data: Idempotency, Atomic File Operations, PostgreSQL, SQLite, Pydantic, Schema Migrations

DevOps & Testing: Linux, Docker, Caddy, GitHub Actions (CI/CD), Pytest, Cargo Test, Strict Mypy, Ruff

SYSTEMS & DEVELOPER TOOLING PROJECTS

Linux Kernel (ALSA Audio Subsystem) | Upstream Contributor · C, Linux Driver Architecture

2026

[git.kernel.org commit](https://git.kernel.org/commit) ↗ | [LKML Patch Discussion](#) ↗

- Diagnosed driver initialization failure in `sound/usb/quirks-table.h` where unpopulated rate tables caused ALSA's `find_format()` helper to reject all sample rates for PreSonus AudioBox USB interfaces.
- Defined discrete 44.1 kHz and 48 kHz rate tables with 24-bit depth specifications across duplex interfaces, restoring PCM capture and playback.
- Patch signed off by ALSA maintainer Takashi Iwai and Linux stable maintainer Greg Kroah-Hartman; merged and backported to the 7.2-stable tree.

Moraine | Rust Developer Engine & Local MCP Server · Rust, Tauri, React, MCP

2025 – Present

github.com/v-t-r-gg/Moraine ↗

- Built a local engine and MCP server in Rust to capture, serialize, and store structured AI coding-agent execution history beside target git repositories.
- Implemented an append-only provenance storage model supporting cryptographic integrity checks, history redaction, and deterministic, idempotent resume operations.
- Developed a lightweight Tauri/React desktop UI communicating via a local HTTP daemon; configured multi-platform GitHub Actions enforcing zero-warning Clippy lints, formatting, and Cargo test suites.

self-nomad | Python CLI & Runtime Configuration Engine · Python, Typer, Pydantic, Pytest

2025 – Present

github.com/v-t-r-gg/self-nomad ↗

- Packaged Python CLI utility that validates, serializes, and transfers agent runtime configurations and skill artifacts across isolated environments.
- Built atomic write operations with automated transactional rollbacks, symlink traversal constraints, and SHA-256 state verification to prevent corrupted restores.
- Maintained CI matrix across Python 3.11–3.13 enforcing strict mypy typing, Ruff linting, and Pytest coverage.

PROFESSIONAL EXPERIENCE

Inteva Products | Production Control & Logistics Analyst (Full-Time)

2025 – 2026

- Engineered an automated trailer-planning and material-scheduling system integrating Plex ERP data, cutting daily manual scheduling time by ~2 hours.
- Wrote SQL queries and operational dashboards tracking production velocity and staging workflows across a 30-person plant operation.

Freelance Technical Services | Web & Software Developer

2020 – Present

- Deliver technical solutions, web applications, local daemons, and media services while managing Linux server infrastructure, automated TLS, and CI pipelines.

G&G Oil Company & PepsiCo | Commercial Driver (CDL-A)

2019 – 2025

- Maintained a multi-year zero-incident safety record in heavy commercial transportation and hazardous materials under strict federal DOT regulations; mentored incoming drivers.

EDUCATION

Ivy Tech Community College | Associate of Applied Science (Conferred 2022)

2022

University of the People | Bachelor of Science in Computer Science (Online, Concurrent with Full-Time Work)

Concurrent