

Stanislav Kolesnikov

Systems & full-stack developer, also known as Void (VxidDev)



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Self-taught, based in Gdańsk. I write kernels, a programming language and a web framework from scratch, because I don't trust anything I haven't taken apart. I'm looking for junior and internship roles in Python, full-stack and systems.

PROJECTS

Nyvela 64-bit operating system

github.com/Nyvela

C · x86-64 assembly · Rust

- Written from scratch. Boots from a raw disk image into long mode and runs a scheduler, a filesystem and ring 3 userspace programs.
- Wrote the pieces around the kernel: NVMe and PCIe drivers (from the NVMe spec), an init system and a shell in Rust.
- Chased down a random triple fault that killed the shell with no panic or backtrace. The fault handler was itself faulting, so I built a single fault dump first (adding CR2 and CR3), then fixed the chain behind it: a heap leak on every timer tick, IST stacks that no IDT gate used, context switches loading the wrong page tables, and a `sys_mmap` that let ring 3 unmap kernel pages.

Arc programming language

github.com/VxidDev/Arc

C · 2026 · 17 stars · GPL-3.0

- Built to stop treating compilers as a black box: lexer, parser, bytecode compiler and a stack-based VM using computed gotos, plus a standard library and native library loading.
- Hybrid memory model: arena allocators, object pools, and values kept on the stack wherever possible.
- Faster than CPython on 6 of 8 benchmarks (1.49× to 2.47×), slower on string concatenation (4.34×) and list building (1.25×).

Nebula async web framework

github.com/VxidDev/Nebula

Python · ASGI · 2026 · 9 stars · MIT · [on PyPI](#)

- Decorator routing, middleware, sessions, templates and websockets, built directly on ASGI to understand the event loop. Development is paused.
- 48,418 requests per second in a local wrk test (4 threads, 900 connections, 30 s), with 20.7 ms average latency.

EduDuck AI study companion

github.com/VxidDev/eduduck

Python · OCR · LLM · 2025–2026

- Full-stack app that turns notes, PDFs and images into quizzes, summaries and study schedules, with chat over your own files. Google OAuth and a multi-language interface.

ArcOS 16-bit real-mode operating system

github.com/VxidDev/arcos

x86 NASM · 2026

- Multi-stage bootloader, shell and an interrupt-based syscall interface.

SKILLS

LANGUAGES	C, x86-64 assembly (NASM), Python, Rust, C++, JavaScript, TypeScript, Bash
LOW-LEVEL	Paging and long mode, interrupts, NVMe and PCIe, bytecode VMs, memory allocators
WEB & DATA	ASGI, Flask, Gunicorn, Jinja2, HTML/CSS, Google OAuth, MongoDB
TOOLS	Linux (Arch, NixOS), Git, GDB, CMake, FFmpeg

EDUCATION

Zespół Szkół Łączności, Gdańsk · IT / Telecommunications · 2025 – present