

Timo Kösters

Real-Time Rendering Engineer

Vulkan, WebGPU, Godot, Unity, PBR, Machine Learning, Rust, C++, C

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Location: Dortmund, Germany

Open to relocation and remote work

Projects	Combining Gaussian Splatting with Meshes Master's Thesis	2026
	- Built a Gaussian Splatting renderer from scratch in Rust with WebGPU - Combined Gaussian splatting with meshes to improve hair and glasses for human avatars - Optimized performance using Renderdoc and Nvidia NSight	
	Custom Training for Diffusion Models Bachelor's Thesis	2023
	- Reconstructed original images from blurry, noisy versions - Implemented two papers and compared to my own third approach	
Selected Experience	Conduit Matrix Server (open source) https://conduit.rs Founder & Lead Developer with multiple sponsorships	Feb 2020 - Apr 2024
	- Created and maintained an open source Matrix homeserver in Rust from scratch - Primary author, owning architecture, implementation, and project direction - Focused on low-latency and low resource usage, achieving up to 5.5x performance over Synapse - Built a community around the open source project with over 2000 active deployments	
	Phoenix R&D https://phnx.im Software Developer	Nov 2024 - Jun 2026
	- Participated in IETF working groups, and implemented message content and room policy drafts in Rust - Contributed Rust and Flutter code and influenced technical decisions through my prior experience	
	Element https://element.io Software Developer (Internship)	Dec 2023 - Mar 2024
	- Used integration tests, benchmarks and emulators to find and fix bugs and to improve performance - Developed the <code>matrix-rust-sdk</code> and worked with the foreign-function interface to Kotlin and Swift	
	CISPA https://cispa.de Student Assistant	Jul 2022 - Apr 2023
	Analyzed the security of mail servers for a new attack using custom packets, tcpdump and Wireshark	
Education	Technical University of Dortmund - Germany Master of Science (M.Sc.) in Computer Science	Oct 2023 - Jun 2026
	- Overall grade: TBD - Elective courses in geometric processing, simulation, reinforcement learning and network security	
	Technical University of Dortmund - Germany Bachelor of Science (B.Sc.) in Computer Science, Minor in Mathematics	Oct 2020 - Oct 2023
	- Overall grade: 1.4 (ECTS: A, top 10%) - Elective courses in image processing, computer graphics and machine learning	