

KRISTIЈAN ŠIMIĆ

Principal Software Engineer

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SUMMARY

Principal Software Engineer with a unique blend of deep macOS system expertise (kernel extensions, XPC, sandboxing) and award-winning UI craftsmanship (Apple App of the Year). Proven ability to bridge the gap between low-level OS performance and fluid, pixel-perfect user experiences. Expert in navigating massive codebases and driving technical strategy for complex system services. Passionate about Swift, SwiftUI, and optimizing the "System Experience" for Apple Silicon.

EMPLOYMENT HISTORY

- **Microsoft** Remote / Hybrid
June 2015 – Present
Principal Software Engineer
 - **Microsoft Defender for macOS**
 - * **System Architecture & API Design:** Architected the system extension-based sensor framework, designing clean, resilient APIs for real-time file, process, and network monitoring. Built the foundation for a high-reliability "always-on" system service.
 - * **Apple Silicon Optimization:** Drove deep performance optimization for Apple Silicon (M1/M2), ensuring native responsiveness and minimal battery impact—critical for maintaining a smooth user experience.
 - * **Cross-Platform Engineering:** Designed and maintained shared security libraries in C++, powering core functionality across macOS, Windows, and Linux.
 - * **Impact:** Reduced CPU/memory consumption by ~15% through telemetry-guided refactoring. Enhanced detection precision by analyzing real-world sensor data. Improved stability across Fortune 500 Mac fleets.
 - **BuildXL**
 - * **macOS Porting & Sandboxing:** Ported the distributed build engine to macOS, implementing full process sandboxing via a custom kernel extension to ensure hermetic builds.
 - * **Scalability:** Designed deterministic caching and scheduling algorithms to accelerate large-scale builds across thousands of cores.
 - * **Impact:** Cut Office for macOS build times by 30%. Enabled adoption for hundreds of developers. Unified sandbox abstraction layer for macOS and Linux.
 - **Microsoft To Do**
 - * **Integration:** Led the technical integration of Wunderlist's core features into the Microsoft 365 ecosystem.
 - * **Migration:** Migrated 10M+ user accounts with 99.9% data integrity, ensuring a seamless transition for loyal users.
- **6 Wunderkinder GmbH** Berlin, Germany
February 2012 – May 2015
Senior Software Engineer
 - **Award-Winning Product:** Key contributor to Wunderlist (Apple App of the Year), scaling the app to over 10M users globally.
 - **Design Collaboration:** Collaborated closely with world-class designers to implement pixel-perfect UI/UX and fluid animations across iOS, macOS, and watchOS.
 - **Engineering Leadership:** Led a team of 5 engineers, defining application architecture and distributed data syncing mechanisms.
 - **Impact:** Improved user retention and engagement through A/B-tested UI refinements. Built a high-performance sync engine achieving reliable cross-device consistency.
- **Herus d.o.o.** Zagreb, Croatia
January 2010 – February 2012
Software Engineer
 - **Video Ingestion:** Developed a macOS-based video ingestion system using the major AV frameworks from Apple.
 - **Real-time Compositor:** Built a real-time compositor to inject dynamic overlays and metadata into IPTV streams.
 - **Optimization:** Optimized media processing for low-latency video transmission.
 - **Achievements:** Achieved broadcast-grade reliability. Delivered a fully integrated, hardware-optimized solution for on-premise deployment and content streaming.
- **Skytec AG** Munich, Germany
February 2007 – May 2009
Internship: Software Engineer
 - **Tooling:** Supported BMW during my internship by developing internal tools and analysis software for in-vehicle entertainment systems.
 - **Development:** Developed diagnostic and configuration tools in C/C++ for automotive systems. Debugging and automation of internal testing and quality insurance tools.
 - **Achievements:** Reduced manual test time by half through development of a reusable utility framework. Incorporated user feedback into iterative tool improvements, increasing adoption.

EDUCATION

- **Ludwig Maximilian University of Munich**

Masters in Computer Science

Munich, Germany

October 2003 – May 2009

- **Focus:** Operating systems and application software development.

SKILLS

- **Languages:** Swift, Objective-C, C / C++, Bash, CMake
- **Apple Platforms:** iOS, macOS
- **Frameworks:** AppKit, UIKit, SwiftUI, Core Animation, Core Data, XPC, GCD / Swift Concurrency, Accessibility, System Extensions
- **Core Competencies:** API Design, System Architecture, Performance Optimization, Rapid Prototyping
- **Soft Skills:** Engineering Leadership, Cross-functional Collaboration, Mentoring

ADDITIONAL INFORMATION

- **Languages:** English (Fluent), Croatian (Native), German (Fluent)
- **Interests:** Competitive Road Cycling, International Travel, Humanitarian Work & Social Justice