David Strnadel



Security researcher · Apple platforms · Czech Republic

I find security flaws in Apple software, so they get fixed before anyone can misuse them. I compare versions of iOS and macOS, look for the one safety check that is missing, and prove the problem with a small test app on a real device before reporting it to Apple.

Before research I spent almost five years testing automotive software at ZF Engineering Plzeň, where I learned that the case nobody tested is usually the one that matters.

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3
security flaws publicly credited by Apple

5 years
software testing in the automotive industry

MSc
cybersecurity, Tomas Bata University in Zlín

Security research

Small details. Real consequences.

iOS kernel · CVE-2026-65398 · Shared credit

A forgotten safety check in the core of iOS

According to Apple, an app could use this flaw to crash the device or corrupt kernel memory, the most protected part of the system.

Binary diffing showed that a new IOMobileFrameBuffer operation lacked an index check present in its neighbour. From the ARM64 code I built on-device proofs of concept: full 64-bit register control, then a repeatable, crash-based kernel-read witness.

Write-up ↗ Apple advisory ↗

Privacy · Sandbox · CVE-2026-43730 · CVE-2026-43664

An app read data it should never have seen

An app locked in its own sandbox could still read data from other parts of the system, including information that could help identify the user.

Direct file reads were denied, yet preference APIs returned other domains' data through cfprefsd. A separate WidgetKit process confirmed it and ruled out process-local cache effects. Apple split the report into AuthKit and Accessibility CVEs; the Accessibility credit is shared.

AuthKit write-up ↗ Accessibility write-up ↗

Experience

APR 2026 — PRESENT

Independent security researcher

Apple platforms

I research iOS and macOS on my own: binary diffing, ARM64 reverse engineering, proof-of-concept apps on real devices and reports for Apple Security. Three findings are publicly credited by Apple. I use AI to move faster, but every claim has to survive a reproducible test.

JUN — SEP 2026

AI Analyst / Data Scientist / Project Manager

Revelia

A short role that combined data analysis, applied AI and project management.

AUG 2021 — JUN 2026

Software tester

ZF Engineering Plzeň · E-mobility testing

ZF Engineering Plzeň is one of ZF's development centres, working on electric drives, power electronics and software for many of the world's carmakers. In the E-mobility testing department I tested AUTOSAR-based software running on automotive electronic control units (ECUs), where every result has to be repeatable and every failure clearly explained to the developers who fix it.

I also worked on cybersecurity testing for new vehicles. That work connects naturally with what I do today: looking at a system the way an attacker would, then proving what holds and what does not.

AI research

VQE-in-GAN

arXiv preprint · 2025

Can a quantum-inspired idea help generative AI models train better? I tested VQE-inspired auxiliary losses in GAN training with PyTorch and Qiskit simulation. Controlled comparisons found no measurable benefit over simpler classical alternatives, and I published that negative result.

Preprint ↗ Code ↗

JEPA × spiking networks

Ongoing · master's research

Could brain-inspired computing benefit from a modern way of learning? I compare conventional and spiking neural networks for JEPA-style latent prediction in PyTorch and Lava simulation, not on physical Intel Loihi hardware.

Code ↗

Languages

Czech — native
English — Cambridge B2 First (2024)

Education

MSc in Cybersecurity

Tomas Bata University in Zlín · 2025 — 2027

In progress, alongside research. My thesis explores JEPA-style learning on spiking neural networks.

BSc in Software Engineering

Tomas Bata University in Zlín · 2022 — 2025

Completed alongside my work at ZF.

Skills

Vulnerability research

Binary diffing, ARM64 reverse engineering in Ghidra, IOKit and sandbox analysis, Objective-C proofs of concept and clear vendor reports.

Automotive software testing

AUTOSAR software on ECUs, embedded systems, e-mobility test environments and vehicle cybersecurity testing.

AI and engineering

Python, PyTorch, Qiskit and Lava; controlled experiments and ablations; AI-assisted research.