THOMAS APPLEY

SOFTWARE ENGINEER

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PROFICIENCY

7 years of experience with military-grade information security software.
Well-versed in OS & embedded stack.
Proficient in C, Go, and Python.

EXPERIENCE

Oct 2019 — Present
Sr. Software Engineer at Anjuna Security

Worked on a trusted execution loader for x64 ELF binaries.

Implemented hardened assembly routines for Intel SGX enclave transitions and signal handling.
Designed and built enterprise TEE features, for example, a virtual file system for
transparent encryption of customer data with hardware-derived AES-GCM keys.

Oct 2015 — Sep 2019
Software Engineer at InfoTeCS

Worked on a FIPS-compatible cryptographic module in embedded C.

Implemented new cryptographic protocols and algorithms making use of hardware acceleration
with SSE, AVX, NEON. Performed code refactoring for higher reliability, correctness, modularity,
and performance. For instance, improved CSPRNG throughput by 2.8x via LUT optimisation.

EDUCATION

Sep 2010 — Jul 2016
BSc & MSc in Computer Security at Bauman University

Majored in Cryptography and Applied Mathematics. Graduated with honors.
WES evaluation is available upon request.

OPEN SOURCE

Superscalar implementation of GOST 34.12 Kuznyechik block cipher lg15.
Run-time test skipping feature in Google's googletest.
Multiple bug fixes in Apache's Ant Ivy.