Ivan Antsimonau

Principal Engineer - Agentic Engineering / Agent Platform

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SUMMARY

Principal engineer with 12+ years shipping secure products. I run software delivery with agent crews every day and build the control layer that makes them safe to trust: deterministic orchestration, verdicts bound to a commit, merge gates that fail closed, tool-permission policy with audit logs, and spend ceilings. Founder of a self-funded AI media pipeline platform. Led engineering teams of up to 10 people.

AGENTIC SYSTEMS

- **Delivery crew.** Designed and run a multi-role agent crew (driver, orchestrator, implementer, reviewer, QA, checker, release, inbox, health) across three model runtimes on a self-hosted orchestration platform. A deterministic PR sweep with no LLM in it runs every 10 minutes, tracks the reviewed SHA, wakes one role once per head, and escalates after 2-3 red heads. The driver agent closed 57 of 86 issues under a delivery-speed bar.
- **QA-fix automation.** Bug reports are fingerprinted and deduplicated into one issue; fixes go through review and a QA verdict bound to the exact head SHA, voided by any new commit; the merge gate requires a validation receipt. One PR shipped 11 QA-confirmed defects with 16,522 tests passing.
- **Decision automation.** A proxy agent rules on in-scope product questions, posts each ruling with an undo and logs it; only scope changes and new commitments escalate. Nightly requirements re-scoring diffs the board, tracks criteria drift by hash, and sends at most 3 grouped questions a night.
- **Agent security.** PreToolUse policy hook for an inbox agent (allowlisted tools, folder-scoped reads, message text treated as data, 1-1 send rule enforced twice, audit log). PR merge guard that fails closed. AI assistant as a visible member of end-to-end encrypted (MLS) groups with its own key, read-only tools and cryptographic revocation.
- **Spec-driven programme.** Drove a Rust secure-messaging core from 31 plans and 24 ADRs through a driver agent: 4 to 16 crates, 1,184 tests passing.
- **Portable harness.** One git-synced knowledge base and rule set across six agent runtimes (Claude Code, Codex, Kiro, Cursor, Copilot, a chat bot) and several machines; 18 shared skills; per-machine memory folded into a shared wiki.

EXPERIENCE

Founder - AI media pipeline platform (self-funded) Aug 2026 - present

- Architecture and technical lead of a visual editor and runtime for text, image, video, audio and composition nodes over multiple model providers. Design target: 1,000 videos a day.
- LLM orchestrator node: the model writes one plan, the engine validates and prices it, calls run as billed rows under a spend ceiling, with one re-plan allowed.
- A nine-agent crew with scheduled autopilots builds the product; QA verdicts bound to the head SHA gate every merge.

Principal Software Engineer - KATIM, Abu Dhabi Oct 2023 - present

Secure communications: encrypted platforms and devices for enterprise and government.

- Built and run the agent delivery crew, QA automation, decision proxy and agent-security controls described above.
- On-device LLM inference (llama.cpp) and an AI assistant inside an end-to-end encrypted client.
- Cut message delivery latency from ~10s to ~200ms under load; memory from ~3GB to ~200MB; background battery from ~104mA to ~18mA.
- Designed a reusable onboarding module adopted across 4 products; introduced modular architecture; led a cross-functional team of 8.

Senior Software Engineer - KATIM Jan 2023 - Oct 2023

- Designed a modular Flutter architecture from scratch with reusable libraries; first release shipped 2 months ahead of schedule.
- CI-based localization pipeline: a ~1 week cycle reduced to seconds.

Senior Software Engineer - Digital14, Abu Dhabi Jan 2021 - Jan 2023

- Performance measurement tooling for database and business-logic layers at high data volume.
- Led an Android team of up to 8; ~20 AOSP-level fixes and customizations.

Lead Android Developer - ScienceSoft, Minsk Mar 2019 - Jan 2021

- Led an Android team of up to 10; MVC to MVVM migration; Android expert in RFPs; technical interviews.

Android Engineer to Senior Android Engineer - ScienceSoft Aug 2014 - Mar 2019

OPEN SOURCE

- **farmout** - one agent runs other coding-agent CLIs in isolated worktrees, with stall detection, cross-review and reviewable results.
- **agents** - AGENTS.md templates for nine stacks, built from 623 sources. **llm-skills** - skills for coding agents.
- **navigation-index** - agent-built knowledge base with a measured error rate (8.3% in a seeded sample of 60).
- **device-link** - E2EE clipboard relay on HPKE/HKDF, verified against RFC test vectors, 52 contract tests.
- **flutter-leak-radar** - 7 packages on pub.dev (verified publisher tp9imka.dev). Upstream fix merged in MemPalace (#1852).

SKILLS

Agentic engineering: multi-agent orchestration, agent harnesses, MCP, tool permissioning and sandboxing, hooks, evals and verification gates, CI integration, spend control, Claude Code, Codex, Kiro, Cursor.

Engineering: system design, Rust, Go, TypeScript, Python, Kotlin, Java, Dart/Flutter, Android (AOSP), PostgreSQL, SQLCipher, Docker, Cloudflare.

Security: E2EE (MLS, HPKE), key derivation, runtime application self-protection, audit logging.

Leadership: led teams of up to 10, technical interviews, RFPs, mentoring.

EDUCATION AND LANGUAGES

Belarusian State University, Faculty of Mechanics and Mathematics, 2012. Russian (native), English (B2).