

Adam Horacek

AI Engineer | Senior Apple Platform Engineer

AI Agents & LLM Applications | Developer Tooling | Python, TypeScript, Swift

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SUMMARY

Software engineer with **15+ years delivering Apple-platform products**, including security-sensitive banking applications. Now building **AI agents and developer tooling in Python and TypeScript** for long-running tasks, code review and retrieval-backed requirements synthesis. Combine hands-on AI work with production experience in architecture, concurrency, security and CI/CD.

PROFESSIONAL EXPERIENCE

Independent Contractor

Senior / Lead Software Engineer

Contract • Remote • 07/2023–Present

Apple-platform client delivery alongside applied AI tooling for my own engineering work.

Applied AI tooling (personal development):

- **Agentic Review (TypeScript, XState, Codex SDK)**: built a PR review runner using GitHub/Jira context, CodeRabbit findings and Codex verification. Added resumable state, schema validation, revision checks and human approval before GitHub writes, with deterministic failure-path tests.
- **Relay (Python, Codex)**: built long-running planner/executor/reviewer workflows with persistent handoffs and recovery. Added a Python guard to validate state and revision-bound review evidence.
- **Retrieval and LLM integrations**: created reusable skills that synthesize Figma, Jira and Slack information into source-grounded technical specifications; prototyped integrations with **OpenAI Agents SDK and Model Context Protocol (MCP)**.

Client delivery and engineering practice:

- Integrated **Codex and Claude** into implementation, refactoring, documentation and review workflows, using repository instructions, reproducible commands and build/test verification.
- Delivered **Swift 6 migrations**, resolving actor isolation, Sendable and data-race issues; introduced DTO boundaries and integrated Kotlin Multiplatform shared modules into iOS.
- Modernized SwiftUI with Observation and built Swift Charts/Metal visualizations; strengthened unit, integration, snapshot and UI tests in CI.

Deutsche Bank

Lead iOS Engineer

Contract • Remote • Frankfurt am Main, Germany • 09/2020–06/2023

- Led development of **greenfield, white-label banking and signing applications**, designing modular Clean Architecture with Coordinators and RxSwift for multiple brands.
- Owned **authentication, session lifecycle and transaction verification** flows; contributed security hardening and defensive coding in a regulated delivery environment.
- Automated brand-specific builds, environment configuration and release pipelines with Swift Package Manager, feature gating and secure secrets injection.
- Mentored engineers through architecture guidance and code review within regulated SDLC and SAFe delivery processes.

Shipped apps: [Deutsche Bank](#), [Postbank](#), [FYRST](#), [Postbank BestSign](#).

EARLIER EXPERIENCE

Deutsche Bank | Senior iOS Developer

Contract • Frankfurt am Main, Germany • 02/2018–03/2019

Built enterprise iPad apps for branch advisors; collaborated with Apple's Enterprise Design Labs. Resolved data races, replaced brittle binary dependencies and improved testing and build workflows.

VEON | Senior iOS Developer

Contract • Amsterdam, Netherlands • 12/2017–01/2018

Modernized a messaging/VoIP application, migrating Objective-C components to Swift and refactoring toward VIPER and SOLID to improve maintainability.

Sapient Nitro | Senior iOS Developer

Contract • London, UK / New Delhi, India • 04/2017–06/2017

Delivered iPad features and iPhone UI/UX improvements for the European Tour app, collaborating with an offshore team and raising quality through code review.

Aegon | Senior iOS Developer

Contract • The Hague, Netherlands • 11/2016–02/2017

Re-architected UI layers with MVC/MVVM and implemented client-side JWT/SSO authentication. Contributed cryptographic improvements and defensive coding in a regulated environment.

Qredo | Senior iOS Developer

London, UK • 10/2015–12/2015

Consolidated an Objective-C/Swift SDK, fixed hundreds of failing tests, optimized multithreading and message queues, and strengthened secure communications with the Security framework.

Farm At Hand | Senior iOS Developer

Vancouver, Canada • 02/2014–07/2014

Built a farm-management iOS app with offline multi-user synchronization. Contributed to API design, DevOps and hiring.

TECHNICAL SKILLS

- **AI engineering:** OpenAI Agents SDK, Codex SDK, MCP, tool calling, prompt/context engineering; API- and connector-based retrieval-augmented generation (RAG); Codex and Claude workflows.
- **Agent reliability:** XState, persistent state, schema validation, recovery, human-in-the-loop approval, revision-aware verification, prompt-injection-aware handling of external context.
- **Languages and data:** Python, TypeScript/JavaScript, Swift, Objective-C, C/C++, Bash; NumPy, Polars, PyArrow. Personal Python work includes data acquisition, validation and reproducible market-data reports.
- **Apple platforms:** iOS, iPadOS, macOS, tvOS; SwiftUI, UIKit, AppKit, Core Data/SwiftData, Combine/RxSwift, Swift concurrency, Swift Charts, Metal and Swift-NIO.
- **Quality and delivery:** pytest, Vitest, Swift Testing, XCTest; unit, integration, snapshot and UI tests; Git, GitHub/GitLab, CI/CD, secure configuration and modular architecture.
- **Local AI / ML exploration:** Ollama and on-device model experiments; Core ML, ML Kit and TensorFlow 2 fundamentals.

EDUCATION & TRAINING

University studies: **Masaryk University**, Parallel and Distributed Systems (2010–2011); **Charles University**, General Computer Science (2007–2009).

Claude Code in Action, Anthropic; Getting started with TensorFlow 2, Imperial College London.

Languages: Czech: native | English: C2 | Slovak: C2 | German: B1