Category

Data & AI

AI for Software Engineering Productivity & Code Quality Playbook

Using AI coding tools to ship faster without quietly accumulating technical debt

- Practitioner
- Intermediate
- Template Included

- Administrator
- 11 December 2021
- 3 minute(s)

Overview

A framework for AI-assisted software engineering — using AI coding tools to accelerate development while maintaining genuine code quality and review discipline, avoiding the common failure mode of AI-accelerated code volume outpacing the team's actual review and quality assurance capacity.

Does using AI coding assistants automatically improve overall

software delivery velocity? Individual coding speed can improve, but overall delivery velocity depends on the full pipeline including review and quality assurance — if code generation volume outpaces review capacity, the bottleneck just shifts downstream, and

quality risk increases without corresponding process adjustment.

What's the biggest code quality risk specifically from AI-assisted

development? Code review capacity not scaling alongside increased code generation volume, allowing quality issues (subtle bugs, inconsistent patterns, security vulnerabilities) to accumulate faster than the team's review process can catch them.

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