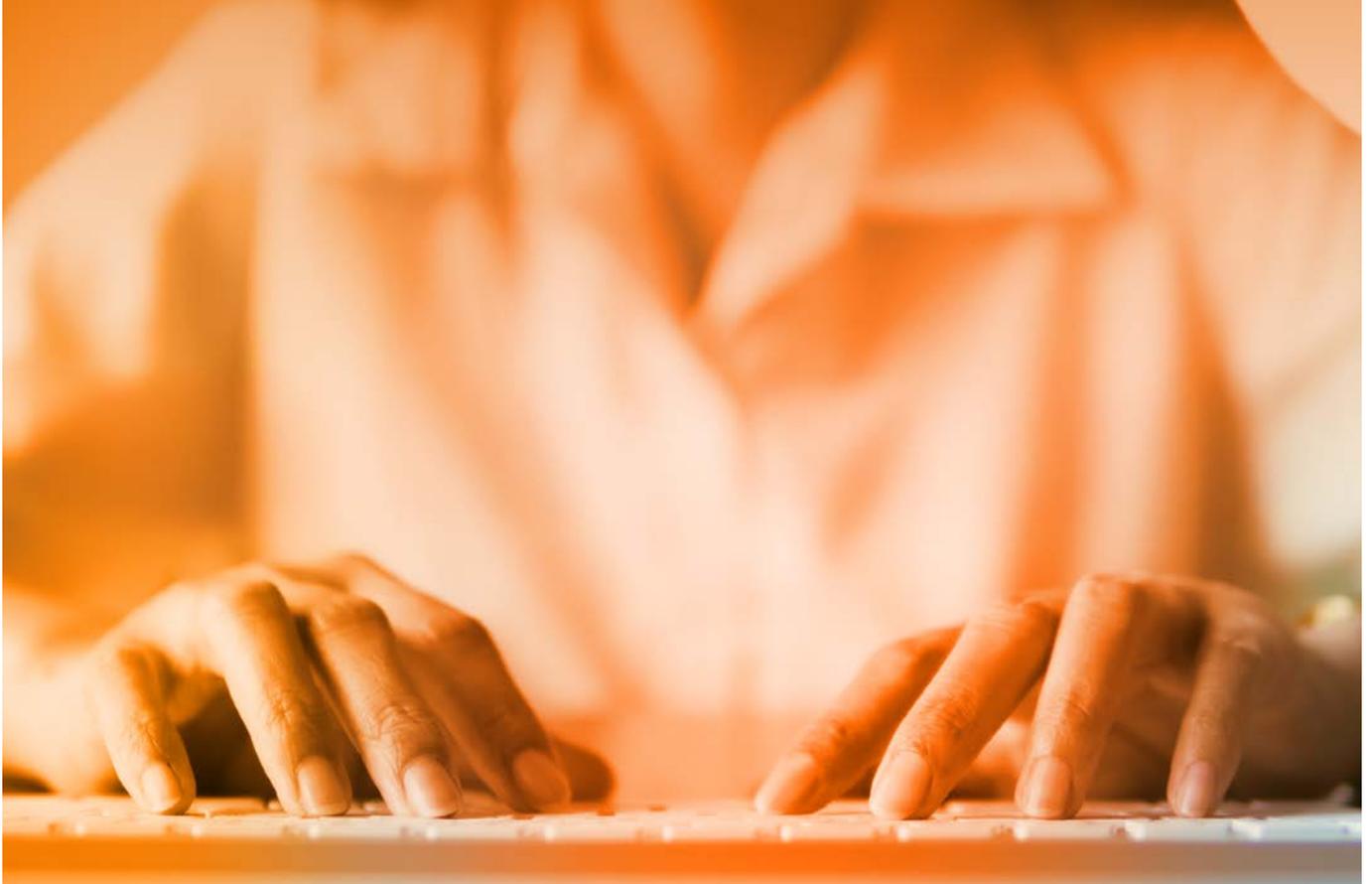


Human + AI: The new way to build apps that are lovable

ArcTouch, a leading app development studio since 2008, explains how putting today's AI-powered tools in the hands of their specialists is supercharging its proven process to deliver successful apps



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Eric N. Shapiro
ArcTouch CEO



Foreword

AI is no longer just a promise — it's changing how we work, and that's a good thing

I always knew artificial intelligence would be disruptive — I just didn't know when.

Back in college in the late 1980s, I studied computer science and engineering. It was there that I first delved into AI, learning how machines could process data and think about solving problems. My senior project, building an AI-powered [Stratego](#) game, took a full semester, resulting in a text-based console application. It ignited my curiosity and excitement for what AI could eventually mean for industry — and even for daily life.

However, for decades, my anticipation for mainstream AI adoption went into hibernation. AI felt more like a distant promise than a practical reality.

I've experienced several seismic technology shifts throughout my life and career. From the first personal computers in my childhood to the internet, then mobile phones — each one fundamentally changed how we live and work. AI is the most transformative technology I've witnessed. It makes me feel like a kid again, learning something entirely new and exciting.

A few months ago I decided to revisit that college project. What took me a semester to create back then, AI helped me recreate and improve in mere minutes today. It illustrated the true, immediate power of AI for builders like ArcTouch.

This book is about that power. It's about how AI is supercharging our time-tested process for building apps that are lovable, not replacing it. Our strength remains our people, but now, with AI, it is helping us do our jobs faster, smarter, and with more creativity than ever.

The next generation of apps will be built by AI-empowered teams. It's not a prediction; it's our daily reality.

This isn't a blind leap. Our nearly two decades in app development give us a unique perspective. We approach AI with our eyes wide open, understanding the immense potential, but also the limitations and the critical need for intentional, responsible use.

AI isn't here to replace human ingenuity; it's here to amplify it. This is the era of advanced human intelligence, where AI becomes the ultimate tool for our skilled specialists.

Join us as we share our practical experience, real-world examples, and guiding principles for building the future of digital products with AI.

Introduction

AI isn't replacing our process — it's supercharging it.

Every industry hits moments where the old way of working no longer makes sense. For app development, that moment arrived when AI stopped being experimental and started being useful — not in theory, but in production work, on real deadlines, for real clients.

The impossible timeline

It was a project timeline we never would have agreed to a year ago:

Define and develop a functional prototype of an app for a Fortune 100 company's employees within days, not weeks.

This was no trivial effort — a desk hoteling app for this tech giant's employees to reserve desks as they visited different offices. And it had to be a multi-device experience: the app on a standalone tablet at the desk site, the user's personal device, and synchronized calendar availability data. Even for a prototype, such a compressed timeline would typically be unthinkable. But our journey with AI had prepared us.

AI usage evolution



Our industry is racing forward, [though sometimes recklessly](#). While we approach the use of AI tools to supercharge our proven process — used for more than 500 apps — we also have our eyes wide open to the risks. **Ultimately, we can't imagine going back.**

ArcTouch's AI Journey

The breakthrough moment

This particular client project began with an [ArcTouch Discovery Workshop](#), typically a **3-5 day intensive session** where our team and client stakeholders align on the business opportunity and set the course for a project. What was shocking — and energizing to our client's teams — was that by Day 3, we already had a functional, working prototype thanks to some late-night prompting using specialized “[vibe coding](#)” AI tools. We were able to test the prototype with users right there in the office. And we validated that the app delivered “product-market fit” before the end of the workshop.

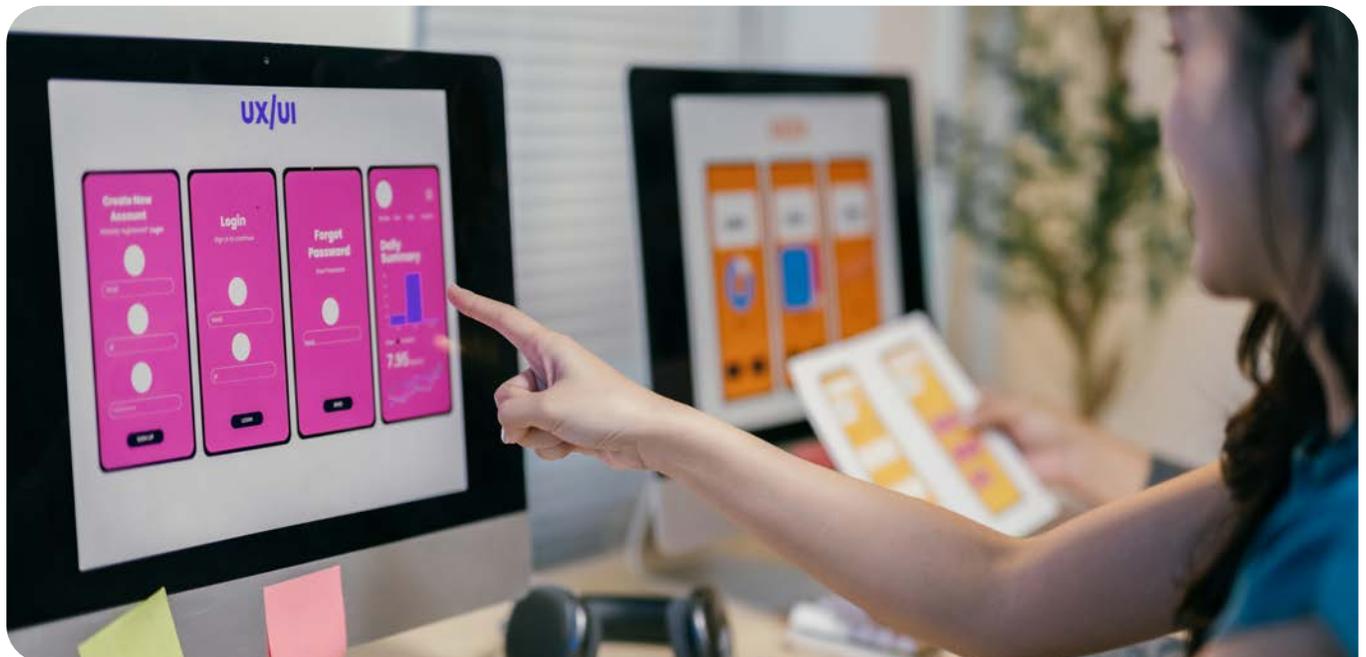
Pleased with the results, our client immediately approved the longer-term plan to build the full enterprise-grade application.



AI: Supercharging our process

This breakthrough encapsulates the core message of this book: **AI isn't replacing our process; it's supercharging it.** It enhances human capabilities, making app development faster, smarter, and more creative.

Crucially, AI takes on much of the mundane work — the tedious documentation, the administrative tasks — freeing our teams to innovate, to put more attention on crafting lovable user experiences, and to focus on the truly human aspects of development.



Client benefits from using AI

We embrace AI with an eyes-wide-open perspective, recognizing AI's immense potential while also understanding the critical need to apply it intentionally and responsibly. Our intentional use of AI translates directly into these tangible advantages for our clients and their businesses:



Better applications, more innovation

AI frees our teams from mundane tasks, allowing more time for innovation. This leads to better applications — including more thoughtful features, and more polished user experiences.



Compressed project timelines

Our AI-powered approach dramatically accelerates every phase of development. This translates directly into compressed project timelines for our clients, helping them get to market faster.



Enhanced quality and reduced risk

AI helps us achieve even higher standards through automated testing and precise bug reporting. Our deep understanding of AI's limitations, coupled with rigorous human oversight, means we proactively manage risks, ensuring integrity and security.



Optimized investment

The efficiencies gained through AI naturally lead to optimized project investments. By reducing manual effort, accelerating timelines, and minimizing rework, AI helps ensure that every dollar our clients spend contributes directly to value creation.

Key themes in this book

In this book, we explore how AI is changing how our product strategists, designers, engineers, and QA specialists work. We share concrete examples of how ArcTouch has used AI in real projects, detailing the specific benefits and challenges we've encountered. As you read through some of the most powerful AI use cases we see today, you'll find several recurring themes:

01. AI for experimentation vs. production

We distinguish AI's powerful role in rapid prototyping and validating concepts (where "vibe coding" shines) from the specialist AI tools used to build scalable, maintainable production apps.

02. Ownership of AI output

At ArcTouch, we emphasize that we own and validate all AI-assisted work. Every line of code, every design element, every strategic insight generated with AI is ultimately our responsibility, requiring human review and refinement.

03. The AI-human relationship

We view AI as an amplifier of our skills, not a replacement. It frees our human talent for higher-value, creative tasks, allowing our specialists to focus on the unique problems only human ingenuity can solve.

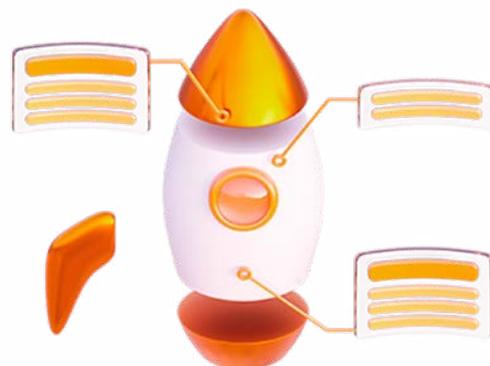
04. The role of the specialist

For commercial-grade software, human specialists remain indispensable. The true power emerges when specialized AI tools are put into the hands of our experienced builders — the best strategists, designers, developers, and QA professionals — who know how to take full advantage of those tools.

05. AI aids cross-functional collaboration

AI tools, particularly those leveraging natural language and rapid prototyping, lower technical barriers and foster deeper, more fluid collaboration across traditionally siloed disciplines like strategy, design, and engineering.

Let's dig into some examples of projects and use cases where we've seen the greatest benefit of using AI tools. And at the end of this book, we share how the ArcTouch AI Guiding Principles will help our proven development process continue to evolve alongside the rapidly growing ecosystem of AI tools.



AI in product strategy

Successful app development starts with defining a winning product strategy. It means understanding the market, pinpointing user needs, and defining a clear path forward. A key part of this process is giving product leaders the confidence they need in an idea before they fully invest in a big project. Historically, this process includes diligent research, intense brainstorming sessions, iterative prototyping, and user testing — which could stretch over months. AI not only compresses this timeline — it gives us capabilities that simply didn't exist before.



Client benefit of AI in product strategy

Strategic clarity & early confidence

By using AI tools, we provide clients with a more rapid, deeply validated product vision. Gaining this early confidence in scope and features allows us to accelerate the development of lovable applications.

Remember the desk hoteling app for the Fortune 100 tech client? We delivered a working app prototype on the third day of our Discovery Workshop. AI made it possible. We can now test ideas — fast — and find the right product for the right market, quicker than ever before.

The evolving role of the product strategist

Today, AI handles many of the administrative aspects of product strategy, freeing our product leaders to become shapers of the product vision and navigators of its path. They are the key people who help define the vision, drive alignment among diverse stakeholders, and determine the clearest way to build it.

Their job is to ask:

- “What does this data mean?”
- “How can we test our ideas, right now?”
- “Does everyone agree with this direction?”

AI reduces the burden of low-value administrative work so that our product leaders can spend more time on high-value strategic leadership.



KEY BENEFITS

Accelerated insights: Faster, more accurate data analysis.

Rapid validation: Quick prototypes. Shortened project timelines and more rapid user testing.

Enhanced collaboration: Smoother meetings. Faster decisions.

Focus on higher-value work: AI handles tedious tasks. Strategists think bigger.



KEY CHALLENGES

Hallucinations & accuracy: AI can be wrong. Humans must check.

Over-agreeable: AI may sometimes agree too readily with human prompts.

Nuance & context: AI misses subtle human details.

Ethical considerations: Data privacy. Bias. Transparency.

AI use cases in product strategy



1 Up-front research

Before any development or design begins, market research is essential: Who are the competitors and what are the trends? Much of this up-front research precedes our [ArcTouch Discovery Workshop](#). Previously, this meant days of web searches, with difficult-to-find insights.

AI tools offer rapid, in-depth research, processing vast amounts of information unmatched by humans. AI-powered “deep research” tools scan thousands of reputable sources in minutes. Our product strategists can now size up a market in a few hours rather than days, and spend more time developing ideas in advance of product planning meetings.

AI-powered research also benefits our engineering team, enabling them to quickly understand pre-existing software or client solutions. Researching the complexities of a tech stack now takes minutes. AI guides strategic technology decisions by exploring scenarios and evaluating trade-offs. The clear benefit: Team members spend more time developing insights, focusing on client needs and user experience, and less time on basic research.



2 Transcription & documentation

Gathering information from client calls and workshops typically involves tedious manual transcription and data synthesis, often taking hours for each meeting. Now, AI helps transcribe and summarize meetings moments after they've ended.

During Discovery Workshops, we often create a “Wall of Stickies” — a physical display of handwritten notes. AI can quickly transcribe these notes from photos, turning hundreds of physical stickies into digital data. In our desk hoteling app project, AI turned an image of the sticky notes into a first draft of a detailed Product Requirement Document (PRD). With this reduced documentation burden, our product leaders can spend more time analyzing market and business opportunities — and defining products that help clients succeed.



3 Rapid prototyping

The Discovery Workshop allows us to determine product scope by brainstorming ideas, mapping user journeys, and prioritizing features. Historically, these sessions ended with compiled notes and plans. Now, AI dramatically compresses the timeline so we can focus on executing features. We can quickly generate interactive prototypes, turning words into working screens. This process helps us and our clients validate ideas and gather user feedback faster, shortening the feedback loop, reducing uncertainty, and gaining confidence in the idea.

For example, our Fortune 100 tech client's prototype was built overnight using a "vibe coding" platform and tested the next day. In another workshop for an aviation company, we used AI to build an interactive route planner in 10 hours, demonstrating a feature the client had discussed internally for months. AI-powered rapid prototyping means clients see a working app immediately, allowing for earlier user testing and faster iteration.



4 User testing & insights

Gathering feedback from user testing provides crucial insights, helping a development team confirm its product truly solves a user need. Historically, this process was incredibly labor-intensive. It often involved weeks of effort to transcribe notes, sort through vast amounts of data from interviews, and analyze findings. Because it took so much time, user testing was sometimes limited, especially when companies faced pressure to launch a product quickly.

AI-powered user research platforms can automatically summarize customer interviews. For example, in a recent project for a pharmacy company, AI helped our product strategists group data into clear, actionable insights, highlight key quotes, and suggest follow-up questions. We not only saved time, but we also improved the overall quality of our test results.

AI in product design

The process of creating intuitive, engaging, and beautiful applications takes a tremendous amount of creativity and skill. And it used to require a lot of manual production work.

Earlier, we saw how “vibe coding” tools, powered by AI, enable rapid prototyping and validation of strategic concepts. These tools quickly turn ideas into functional prototypes. But what happens when you move beyond the prototype, when you need to build a scalable commercial-quality application that delights users? Here, we focus on a different yet equally powerful application of AI: specialized AI tools for digital product designers. These tools automate repetitive tasks, speed up production, and enhance the creative process directly within the designer’s workflow, contributing to the type of applications our clients expect.

AI doesn’t replace a designer’s vision. It’s a powerful assistant. It frees designers from busywork. They get to focus more on the creative process — on the human side of design, where our designers have excelled for nearly 20 years. The result: better, more consistent, more lovable experiences.

The evolving role of the product designer

Before AI, many designers would spend much of their days meticulously making individual custom assets, fine-tuning elements, and preparing detailed documents for developers. This laborious step, crucial for keeping engineering unblocked, had to be repeated with every design change, sending the process back to the beginning if something needed correction during development.

Now, AI can do much of this heavy-lifting production work. Designers become strategic architects of user experience. They focus on empathy. On solving complex design problems. Or they spend more time on making nuanced interactions, animations — the delightful details that are the hallmark of a lovable app experience. The app designer role grows from pixel-pusher to user experience visionary.



Client benefit of AI in product design

Scalable, enhanced design & faster delivery

Clients receive more consistent, delightful user experiences, with design visions delivered faster from concept to implementation, at scale.



KEY BENEFITS

Automated production, amplified creativity: AI handles repetitive tasks. Designers innovate.

Consistency at scale: AI extends branded elements across many assets.

Bridging design and development: AI makes handoffs smooth. Better communication.

Accelerated iteration: Faster design cycles. Quicker feedback and refinement.



KEY CHALLENGES

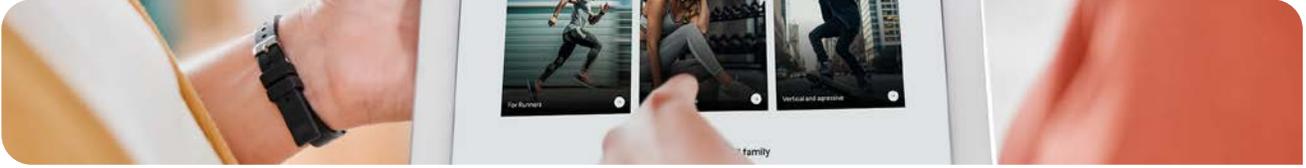
Maintaining originality & authenticity: Risk of generic outputs. Ethical concerns. Lack of human empathy in AI-generated work.

Nuance & artistry: AI struggles with subtle design details, complex art, and specific styles.

Bias & quality control: AI can show bias. It can make flawed assets. Humans must correct.

Tool integration complexity: Coordination required to make different AI design tools work together.

AI use cases in product design



1 Generative design & asset management at scale

Creating a large volume of consistent imagery, especially for extensive projects, is a significant challenge. Custom illustrations, for example, could take a week of iterations to finalize, limiting their use. Similarly, production tasks like removing backgrounds from images or optimizing graphics for various platforms were once incredibly tedious and manual, with designers spending hours meticulously clipping out subjects one by one.

AI brings new power to both creation and management. It helps product designers quickly generate custom images, illustrations, and initial UI concepts for pitches and projects. For one Fortune 100 beverage client, AI helped us transform existing branded images into pixel art, creating a distinct, retro aesthetic. We rapidly generated a large volume of visually consistent assets that perfectly matched the client's desired look, a process that would have previously been incredibly time-consuming and costly with manual illustration.

AI also automates much of the production work for existing assets. For example, Figma's AI now removes backgrounds with remarkable speed and accuracy. For one recent project with a leading fintech company, AI handled batch background removal for hundreds of images. What used to take 5-10 minutes per image — several hours for an entire library — was done in just a few minutes.

These specialized tools free ArcTouch designers from repetitive tasks, allowing more time for fine-tuning designs and higher-value creative work. AI rapidly expands asset libraries, speeds up ideation, and helps us present complex concepts quickly and effectively, at scale.



2 Streamlining design-development handoff

Getting a design from the designer's screen to the engineer's code environment used to be a very labor-intensive and error-prone process. Designers would have to specify every detail in lengthy documents. Then, engineers would have to review and internalize exactly what was meant, sometimes resulting in misunderstandings and additional rounds of communication.

AI helps to streamline this communication between designers and engineers. ArcTouch uses [Figma's MCP Server](#) and its integration with [Cursor IDE](#). This setup lets engineers see design details in their coding environment, without having to switch between different programs. AI automatically details and documents design styles, colors, and text types. This integration ensures a smooth, accurate, and efficient journey from a design concept to a finished app, leading to fewer mistakes and better collaboration.

AI in engineering

Software Engineering transforms ideas into functional, reliable, and scalable products. This traditionally involves meticulous manual coding, debugging, and testing. It can be incredibly demanding and resource-intensive, especially for complex applications.

In previous chapters, we saw AI empower rapid prototyping and specialized design. The journey from prototype to robust, commercial-quality application is where engineering truly shines, and where AI takes on a more rigorous role. Here, specialized AI tools assist engineers, automating repetitive coding, enhancing quality, and streamlining knowledge sharing within production-ready software.

Crucially, the software code generated by AI is still owned by us, the builders. We assume full responsibility for every line, including the bugs and poorly written code that AI inevitably produces.

Just as an engineering team must vet any integrated third-party libraries used in an application, it must also own the quality of any AI-generated code. That sense of ownership has been part of our daily company culture from Day 1.

AI doesn't replace deep knowledge or problem-solving. It's a smart assistant. It frees engineers from mundane coding, allowing them to focus on architecture and critical problems. This means faster work and better software, and future features on the product roadmap completed sooner.

The evolving role of the engineer

Before AI, engineers primarily focused on the manual intricacies of writing code, debugging, and managing systems. Now, AI handles much of that foundational work. This shift allows engineers to become orchestrators of AI tools and spend more time on software architecture.

The engineer's focus moves from code generation to strategy and critically validating AI's output. Engineers can now dedicate more time to understanding complex business rules, designing reliable and scalable systems, and ensuring overall product integrity. They aren't just programmers; they are strategic thinkers who leverage AI to architect better products.



Client benefit of AI in engineering

Accelerated development & robust builds

Clients benefit from more precise, reliable, and scalable applications, delivered faster, as our engineers leverage AI tools to accelerate code generation and feature development, while streamlining knowledge sharing.

**KEY BENEFITS**

Augmented code generation: AI writes code faster. From simple parts to complex changes.

Enhanced quality & reliability: AI helps with testing, debugging, and code review.

Streamlined knowledge sharing: AI eases the transition for engineers onboarding to new projects.

Increased productivity: More output. More efficient work.

**KEY CHALLENGES**

Architectural & maintainability debt: Raw AI code can be messy. Hard to reuse and maintain.

Security & IP risks: AI can create vulnerabilities. Depending on training data, AI may regenerate copy-protected code.

Quality control & over-reliance: LLMs may produce outdated code/references. Developers must verify against official documentation.

Workflow bottlenecks: More AI-generated code could increase code review and QA needs.

AI use cases in engineering

```
Widget build(BuildContext context) {
  return MaterialApp(
    debugShowCheckedModeBanner: false, // hid
```

1 Code generation & autocompletion

Writing code can often be a slow process, especially for common parts or basic structures. Engineers spend valuable time on syntax and setup before functional work begins.

AI significantly speeds this up. Tools like [Cursor IDE](#) and [GitHub Copilot](#) act as intelligent coding assistants. They suggest code, complete lines, and write whole sections, leading to fewer errors and increased productivity.

For example, in a recent website project for a retail and hotel destination, AI helped our engineers leverage design details directly from Figma. The Cursor IDE AI Agent provided code suggestions based on specifications from the Figma MCP Server. This seamlessly retrieved design information like layout variables and styles.

The integration allowed our engineers to implement design specifications in minutes rather than hours. While AI-generated code still requires human review and refinement to meet project standards, it frees engineers to focus on complex, unique aspects of the code.



2 Debugging & error resolution

Finding and fixing bugs is an inherent part of software development, often consuming a substantial amount of an engineer's time. Debugging complex systems, especially those with multiple integrations, can be a painstaking process of tracing errors and implementing fixes.

AI provides crucial assistance here. Integrated AI tools in IDEs like Cursor, often enhanced with MCP Servers, help developers reduce context switching between various tools such as Jira, Notion, Figma, or even Google searches. This enables longer periods of uninterrupted focus.

AI tools analyze errors, suggest potential fixes, create patches, and can even simulate problems to help diagnose issues more efficiently. This capability streamlines the debugging process, allowing engineers to pinpoint issues faster and implement solutions with greater confidence.

For instance, for the working prototype we built for the Fortune 100 tech company during our Discovery Workshop, AI was applied for debugging and error resolution, which greatly streamlined the integration of complex hardware APIs and made the overall development process smoother. This ultimately saves valuable time and improves development velocity.



3 Code refactoring & documentation

Great software needs clean, easy-to-read code with clear documentation. But making code better (refactoring) and writing documents can be tedious. Also, it's time-consuming for new team members to quickly understand existing codebases, especially as projects grow.

AI enables a more streamlined workflow by generating and updating documentation continuously from the start. Developers become orchestrators and reviewers, rather than writing everything from scratch. This reduces effort and ensures documentation remains accurate, current, and consistent. High-quality documentation benefits the entire team, increasing alignment and making onboarding new team members easier.

Developers use for refactoring, developers use AI to simulate refactoring. Developers use it to simulate scenarios, compare approaches, and select the best fit. Decisions and changes that once took hours or days can now be made in minutes. When used responsibly, it enables scalability and reliability, ensuring developers retain full cognitive ownership of their code.



4 Rapid prototyping and risk reduction

Engineers often face technical unknowns. These can greatly impact project cost and time. To tackle this, they use “[tech spikes](#).” These are quick, focused investigations to test assumptions, clarify unclear features, and lead to more precise plans. AI makes these tech spikes much faster. In a recent Discovery Workshop, we used AI for three key tech spikes. AI created rapid prototypes and quickly tested technical assumptions that affected our estimates. This gave our client confidence to move forward with clarity. AI is perfect for tech spikes because the code doesn't need to be production-ready. It's for learning and demonstration, helping engineers explore solutions and reduce risks early.

AI in quality assurance

The QA process ensures applications meet user expectations, perform flawlessly, and are free of defects. Traditionally, this has been a meticulous, often manual process, involving extensive test case creation, execution, and detailed bug reporting. AI is shifting QA beyond manual execution of tasks to a more strategic function.

AI's ability to accelerate development presents a unique challenge: It can upset the balance between engineering and QA. As engineering productivity surges, QA risks being overwhelmed by a higher volume of code, potentially leading to a decline in product quality. Also, AI is likely to introduce more error-prone code, placing an additional burden on QA. By leveraging their own AI tools, QA teams can effectively offset this trend. They automate repetitive tasks, enhance bug identification, and gain deeper insights. This frees QA professionals to focus on strategic testing, complex scenarios, and the overall user experience, ultimately leading to more reliable and robust applications.



Client benefit of AI in QA

Comprehensive coverage & risk reduction

Clients gain robust, thoroughly tested applications and additional confidence in product quality, as our QA specialists deploy AI tools to automate test generation and enhance bug reporting, ensuring comprehensive coverage and accelerated validation.

The evolving role of the QA professional

Before AI, QA professionals primarily focused on manual testing, meticulously following test plans, and writing detailed reports. Their time was heavily invested in repetitive tasks.

Now, AI handles much of this foundational work. QA professionals are free to become strategic orchestrators of quality. Their role is evolving towards that of a "QA analyst," who understands business needs and advocates for the user experience and overall product quality. Their focus shifts from manual checks to designing smart tests, crafting precise quality reports, and critically checking AI's work. They are no longer just bug catchers; they are strategic partners who leverage AI for comprehensive coverage and building confidence that the app is ready for users.



KEY BENEFITS

Fast test scenario generation:

AI writes test scripts fast. Less manual work.

Enhanced code review: AI adds another layer of quality check.

Improved traceability: AI links tests to development.

Accelerated QA cycles: Speeds up the overall testing process.



KEY CHALLENGES

Validation of AI outputs: AI tests need a human to find errors and catch "hallucinations."

Nuance & edge cases: AI can miss subtle bugs and complex user behaviors.

Increased review load: More AI code means more human review. Can create new slowdowns.

AI use cases in QA



1 Test scenario generation

Creating comprehensive test scenarios is a foundational, yet often time-consuming, task in QA. Manually writing dozens of scenarios for each feature can be repetitive and prone to human error, potentially leading to gaps in test coverage.

AI makes this process significantly faster. AI tools can rapidly help generate a wide range of test cases. For a recent client website project, our QA team used AI to create test scenarios. They accessed code directly from the engineering team's development environment and using AI generated more than 50 test scenarios. What would have once taken a full day to write these scenarios from scratch took just 5 minutes. Reducing the burden of repetitive work ultimately allowed our QA team to spend more time considering the user experience.

Additionally, AI helps keep these test scenarios in sync with the code. As business needs change and product features evolve, the software code and corresponding test scenarios need to evolve. AI helps reduce the burden of keeping everything consistent — and helps our QA team ensure product quality as it evolves.



2 Bug reporting

Good bug reports are vital. They need to be clear, detailed, and easy to reproduce. However, writing them takes time and often involves back-and-forth communication with developers, which can slow things down.

AI helps a QA analyst write clear reports with the precise context, exact steps to reproduce, and clear expected results. For a recent client project, the time for a single bug report creation dropped from 10-15 minutes to under 5 minutes. This saved over 100 minutes of human time per testing cycle. Also, as AI can help deliver more consistent reports with clear instructions that developers understand, issues are resolved faster.



3 Advanced testing applications

Beyond basic tests, AI enables more sophisticated and automated testing applications. These include visual checks or identifying impacts on existing tests, tasks that used to be too hard or too slow for manual execution.

During a recent website project for a leading communications firm, we used AI to generate a Python script that compared the before-and-after website, including 35 different pages, for visual differences. That AI automated test took a total of 20 minutes for one of our team members. A manual check would have taken a whole day. It found six errors right away — errors that could be fixed immediately rather than waiting hours for a human-written report.

AI also automates test scenario impact analysis. It quickly checks ticket needs against hundreds of existing tests, identifying impacted ones in under a minute. This eliminates the laborious manual review of countless tests, ensuring QA achieves full coverage and rapid validation.

The ArcTouch AI Principles for software development

We've shown how ArcTouch leverages AI to deliver exceptional client benefits – building apps that are lovable, faster and with enhanced quality. This powerful capability, however, is not accidental. It stems from a principled approach to AI integration applied to our proven process, perfected across hundreds of apps created since 2008.

In an era of rapid technological change and evolving client needs, our principles serve as the bedrock of our practice. They ensure that while we innovate aggressively, we do so responsibly, transparently, and always with human expertise at the forefront. These core tenets guide our teams in navigating AI's complexities, mitigating risks, and maintaining our unwavering commitment to quality and human-centered design and development.

Our approach to using AI is built upon these eight foundational principles:

01. Respect tools and policies

We adhere strictly to approved AI tools and guidelines that follow established internal and client-specific policies. We specialize in adapting to each client's unique tools, policies, AI culture, and guidelines, which may vary significantly. Our team is adept at adjusting quickly and effectively to diverse environments.

03. Use only necessary data

Data privacy and security are non-negotiable. We strip sensitive information from data used with AI tools. We minimize the use of confidential client or user data. We employ techniques to anonymize and secure internal AI environments where appropriate.

05. Keep humans in the loop

AI amplifies human capabilities; it does not replace them. Human experts retain ultimate responsibility for judgment, creativity, and strategic direction. AI supports, but does not dictate, the final outcome. This ensures our work remains human-centered.

07. Be transparent

We clearly communicate with clients in advance about where we intend to use AI in our development process. This transparency builds trust with clients and internal teams. It allows for better debugging and accountability. It ensures intellectual property considerations are managed responsibly.

02. Know when not to use AI

We recognize that AI has limitations. We avoid deploying AI for sensitive or critical tasks. These are areas where human judgment, empathy, or originality are paramount. This includes tasks where the risks of error, bias, or misinterpretation are too high. We strive for AI to be a tool, not a liability.

04. Verify AI output

We test and review all AI-generated results rigorously. Every output — whether code, design, or insight — must be validated, fact-checked, and refined by a human expert. AI is a powerful assistant, but never an autonomous decision-maker.

06. Work incrementally

We have always embraced an agile mindset in our process, and this continues with our approach to AI. We generate and test outputs in small, manageable steps to quickly identify and correct issues. We validate AI's contribution. We adapt our strategies based on early feedback.

08. Improve continuously

We are committed to ongoing learning and adaptation in the rapidly changing AI landscape. This includes regularly evolving our practices to amplify our team's productivity and our process. We refine our approach based on new AI capabilities and lessons learned from our real-world applications.

Conclusion

What's next?

AI is reshaping software development faster than any previous technological shift. Where the past waves — internet, mobile, cloud, microservices — transformed what we built, AI is transforming how we build.

The opportunity is clear:



Strategy is clarified faster.



Design becomes more creative, not more constrained.



Engineering accelerates and improves consistency.



Quality scales without manual overhead.

The investment you make in an app now goes farther.

But harnessing this opportunity requires more than just adding new AI tools to the process.

It requires mindset, discipline, and responsible implementation — **values ArcTouch brings to every AI-enabled engagement**. It's about responsibly applying these new tools in effective ways that supercharge an already proven process that we've perfected over 500 apps since 2008.

The future of app development belongs to AI-empowered teams — not AI-replaced ones.

We invite you to build that future with us.

ArcTouch offers AI Advisory Workshops to help product, design, and engineering teams unlock faster workflows, higher-quality outputs, and smarter collaboration.

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