StyleSync: Implementation & Ethics Memo

How I Actually Used AI While Building

Google AI Studio was the primary tool for building StyleSync. One comprehensive prompt generated about 80% of the functional React application, interface, logic, basic styling, in minutes.

But that initial generation was just the starting point. Most development time went into iterative refinement: test the interface, spot issues in the UI, write new prompts, manually edit results. The AI handled the code generation, styling patterns, and documentation well. Complex logic or stylistic elements required human intervention. Design decisions also needed human judgment. The AI's generic mood options ("happy," "sad") got replaced with fashion-specific choices ("relaxed," "confident," "bloated"). The outfit generation prompts needed multiple rewrites to stop the AI from suggesting imaginary items not in the user's wardrobe.

I also used other AI's, Claude and ChatGPT to help brainstorm additional features for the prototype throughout and to help refine the prompts used.

Why the AI Feature Looks This Way

The prototype is much simpler than the Phase 1 vision. No deep image analysis, no learning preferences, no weather APIs, no retail connections. These simplifications were done to ensure a working usable V1 prototype could be created without getting too technical.

Outfit generation and shopping recommendations were chosen because they demonstrate the core value proposition: reducing decision fatigue. They directly address the problem while being straightforward to implement.

The biggest simplification: relying on filenames and labels instead of computer vision. This severely limits what the AI understands about colors, patterns, textures. But implementing true image recognition would have required additional more complex tools which I am not familiar with, preprocessing complexity, and handling poor-quality photos. For a proof of concept, manual labeling was acceptable in my opinion.

The ✓/✕ confirmation system is a compromise. More detailed feedback on the users decisions would be better, but without a database, there's no point collecting it at this stage.

The shopping assistant shows the biggest gap between vision and reality. Ideally it would connect to real e-commerce platforms with actual products and prices. Currently it just

generates generic descriptions. But it still demonstrates an important idea: AI could help users shop intentionally to fill wardrobe gaps instead of making impulse purchases.

The honest take: this AI integration proves the concept but isn't genuinely useful for daily life. No one will upload their wardrobe every morning. The prototype validates feasibility but more work would need to be done to create a usable prototype.

Risks, Trade-offs, and Ethics

Privacy was the first concern. StyleSync requires users to upload personal clothing photos that reveal economic status, style preferences, body size, lifestyle. Right now, images are stored temporarily and deleted when the session ends. But there's no transparency about what happens when users click "Generate Outfit", images go to Google's gemini servers, get processed, presumably get logged.

Production would need explicit consent flows explaining what happens to images, who processes them, and what their data practices are. Ideally, implement client-side processing and only send metadata, not full images. The current session-only storage is accidentally privacy-protective because nothing persists.

Bias is more subtle but equally important. Gemini was trained on data that reflects mainstream fashion norms and potentially problematic assumptions. Testing didn't reveal obviously discriminatory outputs, but that doesn't mean bias isn't present. The AI's recommendations implicitly reflect Western, contemporary fashion. Testing with clothing from other cultures was not done. The AI "knows" fashion mainly through whatever was dominant in its training data.

What I Learned About Building with GenAI

Output quality depends entirely on instruction quality. Vague prompts like "make the design better" almost never worked. Effective AI collaboration requires extreme specificity, what you want, why, in what context, with what constraints.

This revealed a paradox: using AI effectively requires domain expertise to write precise instructions. Without understanding the desired output and some level of understanding of how website building works, the outputs are messy. AI doesn’t eliminate the need for technical knowledge, it shifts which knowledge matters.I think now, system architecture matters more than knowing how to code.

AI enables faster iteration, not faster perfection. It generates imperfect solutions instantly that get refined through testing and more prompts. The cycle is faster than traditional development but requires just as many iterations. Each just takes minutes instead of hours.

But there are risks. Easy AI-generated prototypes create false progress. StyleSync looks professional in testing but is nowhere near ready for real users. The gap between "working prototype" and "production-ready" remains enormous. AI makes the first 80% faster; the last 20% still requires serious work and more knowledge than I have.

The ethical considerations, privacy, bias, trust, transparency, will only intensify as AI advances. Entrepreneurs must treat responsible AI use as core product design, not an afterthought. Products that succeed long-term will earn trust through transparency and commitment to user welfare over algorithmic convenience.