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I'm reaching out about the Growth Principal Engineer role because the shift you're making—from deterministic user journeys to intelligent growth systems—is exactly the kind of transformation I find most compelling.

At Raytheon, I led the effort to build real-time fault detection pipelines for commercial jet engines. The challenge wasn't just processing sensor data at scale—it was designing systems that could learn and adapt. We built an ML orchestration pipeline that evaluated multiple models in parallel without adding latency, using asynchronous patterns to keep the critical path fast while continuously improving our predictions. The key was creating feedback loops where every alert, every grounding decision, every inspection recommendation fed back into the system's understanding. That's the same mindset you're describing: systems that reason, predict, and personalize based on what they learn.

What made that work wasn't just technical execution—it was operating at the intersection of engineering, data science, and business constraints. Engine fault detection is life-or-death serious, so we built comprehensive audit trails tracing every output back to specific code revisions or model versions. We had to make AI-driven decisions explainable and trustworthy in a heavily regulated environment. That experience taught me how to champion AI-native patterns while establishing the guardrails needed for production systems—experimentation frameworks, evaluation metrics, and observability that gave everyone confidence in what the models were doing.

I see parallels to your Growth platform. Lead scoring, onboarding personalization, intelligent upsell recommendations—these need the same discipline. You're building systems that make consequential decisions about customer journeys, and they need to be both effective and trustworthy. The nice-to-have in your job description about "designing product experiences incorporating ML and AI" is exactly what I did at Raytheon, just applied to aviation instead of growth.

The other piece that resonates is your emphasis on different execution horizons. At Istari Digital, I embedded with the team for nearly two years delivering a zero-trust collaboration platform from concept to commercial launch. We shipped on time because I moved between strategic architecture decisions (designing cryptographic asset lineage, database schema for complex relationship traversal) and tactical execution (tuning PostgreSQL queries, setting up CI/CD to validate compliance requirements). But I've also done the opposite—at Riverdrop, I kicked off an entire ML-driven product search engine with a three-person team, set the technical direction, then stepped back as the system scaled.

At MediData, I took over mobile engineering for their Patient Cloud platform and inherited teams that were struggling with velocity. I didn't just set direction—I dug into their SDLC, found the bottlenecks, and instituted process improvements that increased average team velocity by 2.5×. That required understanding where teams were blocked, which problems needed technical solutions and which needed organizational ones, and having the credibility to drive changes across the org.

The cross-functional collaboration piece is something I've lived throughout my career. At Dayforward, I was head of technology for a life insurance startup where we built an algorithmic underwriting platform. Insurance underwriting is fundamentally a growth problem—you're optimizing conversion while managing risk. We launched the platform the same day the company got regulatory approval, which only happened because engineering worked in lockstep with operations, compliance, and business teams. That's the kind of partnership you need when building revenue systems that span acquisition, expansion, and automation.

Your focus on experimentation and continuous optimization also hits home. At Huge, I led a 20+ person cross-functional team and evangelized CI/CD and agile practices. I set up an engineering guild system that let teams propose and execute R&D initiatives. One guild-led investigation turned into a $5M contract because we created space for experimentation and gave teams ownership of driving innovation.

What excites me about this role is the opportunity to help Gusto become AI-native in a domain—growth engineering—where intelligence can compound. Every interaction teaches the system something new about intent, every experiment refines your understanding of what works, every model improves based on real customer outcomes. Building systems like that requires someone who can bridge AI capabilities, platform engineering, and business impact. That's the work I want to do.

I'd love to talk more about how I can help shape Gusto's next phase of growth.

Michael Welles