Periodic Labs, Pierre Computer, and the Next AI Infrastructure Signals

VC Tech Radar

2026-04-04

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By VC Tech Radar • April 4, 2026

A VC-focused scan of the strongest new company, infrastructure, and market signals: Periodic Labs on atoms, Pierre on AI-native git, and the macro pressure around compute, trust, and open-model distribution. The brief emphasizes actionable founder, product, and market signals over broad AI hype.

1) Funding & Deals

- **Somos Internet — $40M Series B behind a vertically integrated connectivity thesis.** Somos raised a $40 million Series B co-led by Bracket Capital and Ribbit Capital, with Not Boring Capital following on from its earlier investment [1]. Founder Forrest Heath III is building a vertically integrated internet company in Medellín, Colombia, and the company says it is growing in Colombia while preparing to expand into Mexico [1].
- **Star Cloud — $170M and unicorn status in an ambitious compute-in-space theme.** TechCrunch highlighted YC startup Star Cloud as having raised $170 million this week, pushing its valuation into unicorn territory [2]. For this brief, it is more useful as a capital-allocation signal than as a direct early-stage comp.

2) Emerging Teams

- **Periodic Labs — the strongest founder-pedigree + frontier-application signal in the batch.** Periodic is building an AI foundation lab for atoms aimed at materials science, chemistry, and other physical-world applications [3]. CEO Liam Fedus came out of physics, worked on distributed training, mixture-of-experts, transformers, and sparsity at

Google Brain, and later led post-training at OpenAI, where he helped turn GPT-4 into ChatGPT [3]. The company's architecture uses language models as an orchestration layer over specialized symmetry-aware atomic models and experimental loops, and it is positioning itself as an intelligence layer for enterprises bottlenecked by materials or process engineering [3]. Fedus frames the upside as faster physical R&D in areas like semiconductors, aerospace, and energy [3]. Elad Gil surfaced the company positively on No Priors, and Periodic says it is hiring across AI, infra, control, systems, and product engineering while compute remains the main capital cost [4, 3].

- **Pierre Computer — AI-native git is becoming its own infrastructure category.** Jacob Thornton, formerly at Coinbase, Medium, and Twitter and creator of Bootstrap, has built Code.storage, an AI-native git platform aimed at AI agents pushing code and repositories [5]. Pierre claims a sustained peak of more than 15,000 repos per minute for three hours and more than 9 million repos in the last 30 days; Pragmatic Engineer notes those numbers are self-reported and that the product is still in closed beta [5]. The core thesis is straightforward: GitHub is under growing load from AI agents, creating room for a purpose-built alternative [5].
- **Complir.io — compliance automation with real operating metrics.** YC says Complir maps products to regulatory requirements, autogenerates documentation, and keeps compliance current as products or regulations change [6]. The company says it already manages more than 100,000 products across Europe and is growing about 45% month over month [6].
- **Lumbox — tiny, but a real agent-infrastructure pain point with payment attached.** Lumbox is a bootstrapped email infrastructure API for AI agents, built to handle OTPs, sign-up links, and approval flows through a real inbox plus a long-polling OTP endpoint [7]. The founder says the first paying customer came from an agent that kept failing at email verification during automated account creation [7].

3) AI & Tech Breakthroughs

- **Turbo-Lossless points to a serious new inference-efficiency lever.** Turbo-Lossless is a lossless 12-bit BF16 compression format that stores weights in 12 bits by replacing the 8-bit exponent with a 4-bit group code; for 99.97% of weights, decoding is one integer add, and the format is designed to be used directly during inference [8]. Claimed properties include 1.33x smaller storage than BF16, fused decode plus matmul, and support for both NVIDIA and AMD GPUs [8]. On an RTX 5070 Ti, the author reports 64.7 tok/s on Llama 2 7B and 2.70x multi-user throughput versus vLLM [8].

- **ZKML is moving from theory toward agent infrastructure.** Clouded Judgement argues recent advances have reduced proof overhead from 1,000,000x to roughly 10,000x, with some frameworks now able to prove image-model inference in a few seconds through recursive SNARKs, GPU acceleration, and improved algorithms [9]. The practical unlocks are model and input integrity, cryptographic receipts for agent actions, privacy-preserving inference, and eventually agent-to-agent trust [9].
- **OpenClaw plus Pi is a concrete early agent architecture to watch.** Andreessen's description is unusually specific: an agent is an LLM plus a Unix shell, file system, markdown state, and a cron-like loop [10]. Because state lives in files, the agent can retain continuity across model swaps, inspect its own internals, and modify itself by adding new functions or features [10]. Reported examples include health dashboards and sleep monitoring, smart-home control, and rewriting firmware for a robot dog [10].
- **Pika Labs is testing real-time video as an agent interface.** Pika released a beta video chat skill for any AI agent via PikaStream 1.0, saying it preserves memory and personality, adapts in real time, and can execute agentic tasks during calls when paired with Pika AI Self [11].

4) Market Signals

- **GPU scarcity is worsening, not easing.** SemiAnalysis reported customers fighting to pay $14 per hour per GPU for AWS p6-b200 spot instances, near-zero availability, some neoclouds no longer selling single nodes, and H100s renewing at the same rates as 2 to 3 years ago; Nathan Benaich said he is hearing the same [12, 13].
- **Open models now win or lose on distribution, not just benchmarks.** Interconnects says the practical rubric is performance, country of origin, license, tooling at release, and fine-tunability [14]. The same essay argues Gemma 4's success will depend more on ease of use than a 5 to 10 percent benchmark swing [14]. Clement Delangue's parallel framing is that if a release is neither frontier-pushing nor open-source, it increasingly gets ignored [15, 16].
- **The B2B contest is now incumbents versus AI-native insurgents, and the fundraising bar reflects that.** Andrew Chen says the core question across B2B verticals is whether incumbents incorporate AI faster than startups can disrupt them, or whether tools sold to incumbents lose to full-stack replacements [17]. SaaStr's analysis of 4,000-plus pitch decks says traction drives 75% of the score and that Series A founders are now competing against AI-native companies growing 300 to 500 percent or more at similar ARR [18]. a16z's shorter version is that tech spend is going to AI, while IT services are first on the chopping block [19, 20].

- **Agent activity is already stressing developer infrastructure.** Pragmatic Engineer says GitHub seems unable to keep up with the increase in infra load from agents, with Claude Code bot contributions up 6x in three months [5]. Newcomer adds a second anecdote: Mintlify's servers crashed overnight from OpenClaw traffic before the company even knew what OpenClaw was [21].

5) Worth Your Time

- **No Priors x Liam Fedus on Periodic Labs** — the best founder interview in the batch for understanding why current models may finally be good enough to connect to experiments in the physical world, and how Periodic thinks about language models as an orchestration layer over atomic models [3].



AI for Atoms: How Periodic Labs is Revolutionizing Materials Engineering with Co-Founder Liam Fedus (11:39)

- **Marc Andreessen's 2026 AI Thesis** — useful for the combined case on reasoning, coding, agents, self-improvement, plus the OpenClaw agent architecture and edge/open-source distribution arguments [22, 10].
- **Clouded Judgement: Zero Knowledge, Maximum Trust** — the clearest essay in this batch on why AI agents may need a new trust layer, and why ZKML is becoming more practical [9].

- **The Pragmatic Engineer on GitHub vs. Pierre** — the best concrete read on how agent-generated repos are creating a new infrastructure category, with enough traction data to pressure-test the thesis [5].
- **Interconnects on what makes an open model succeed** — the most investor-useful framework in the batch for evaluating open-model releases beyond raw leaderboard position [14].

Sources

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