

中国电子 China (Overseas) Technology

OpenAI 系列追踪 Day 1: GPT-4.1 推动文本推理升级, 多模态仍待补强

OpenAI Tracker Day 1: GPT-4.1 Enhances Text Reasoning, Multimodal Capabilities Still Lag Behind

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Flash Analysis

事件:

2025 年 4 月 14 日, OpenAI 正式发布新一代语言模型 GPT-4.1 系列, 包括 GPT-4.1、GPT-4.1 Mini 和 GPT-4.1 Nano 三个版本。

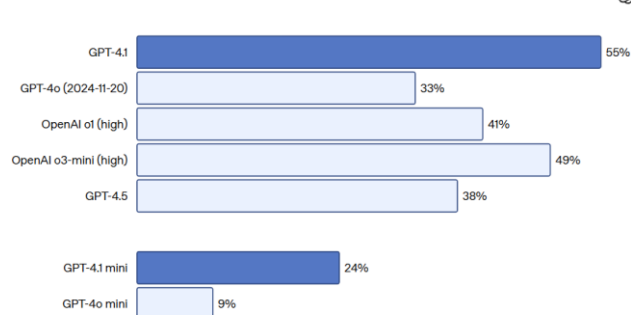
点评:

GPT-4.1 拓展 AI 应用边界, 向更长文本与更快响应迈进。GPT-4.1 支持高达 100 万个 token 的上下文处理能力, 是前代模型的 8 倍, 能够实现跨章节、跨文档的持续对话与逻辑推理, 适用于法律审阅、科研摘要与大型代码库管理等高复杂度任务。此外, 模型的响应延迟大幅降低, 在开发者实测中推理速度较 GPT-4o 提升近 40%, 可支持更广泛的实时场景部署。

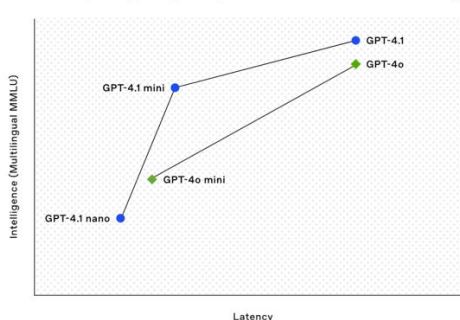
编程与指令处理能力大幅增强, 助推开发者生态繁荣。在 SWE-bench Verified 测试中, GPT-4.1 准确率达 54.6%, 较 GPT-4o 提升 21.4 个百分点, 尤其擅长多语言代码生成与调试。Scale 的 MultiChallenge 测试显示其在遵循复杂指令、结构化输出中的表现优于业内大多数模型。伴随工具调用与函数执行能力提升, GPT-4.1 有望加速 AI 在低代码开发、自动运维、金融建模等场景的渗透。

GPT-4.1 系列分层产品化策略推动 AI 下沉: Mini、Nano 定位边缘端。GPT-4.1 Mini 与 Nano 版本分别面向轻量化推理与边缘计算场景。其中 Nano 模型每百万 tokens 成本仅 0.12 美元, 适配 IoT、工业机器人、智能终端等部署环境。OpenAI 借此构建“通用模型+分层部署”体系, 有望提升模型普及率, 进一步夯实其在 AI 平台生态中的主导地位。

SWE-bench Verified accuracy



GPT-4.1 family intelligence by latency



我们认为, OpenAI 本周的产品更新至关重要, 但从目前已发布的内容来看, 其在多模态能力和推理硬件方面略显滞后。相较之下, Google 推出的 Gemini 2.5 在多模态处理能力上表现更为出色, 已支持图像、视频、音频与代码的统一理解, 且在多个基准测试 (如 MME、MathBench) 中领先于 GPT-4.0。与此同时, Google 近期发布的 TPU v7 (Ironwood) 进一步巩固了其在 AI 推理硬件领域的领先地位。另外, 星际之门的计划和规模现在不确定性较大, OpenAI 的算力目前仍依赖于 Azure。若 OpenAI 本周不能拿出在多模态、推理效率或平台工具链方面的实质性更新, 或在后续面临更激烈的竞争。

风险提示: 1) AI 需求不及预期; 2) 地缘政治环境干扰供应链; 3) AI 数据中心建造放缓

English Summary:

Event:

On April 14, 2025, OpenAI officially launched its next-generation language model series—GPT-4.1—including three versions: GPT-4.1, GPT-4.1 Mini, and GPT-4.1 Nano.

Comment:

GPT-4.1 expands the boundaries of AI applications, pushing toward longer context and faster response. GPT-4.1 supports up to 1 million tokens of context length—8 times that of its predecessor—enabling persistent multi-document reasoning across chapters, making it suitable for complex tasks such as legal review, academic summarization, and large-scale codebase analysis. In addition, the model exhibits significantly lower response latency, with developer benchmarks indicating a ~40% speed improvement over GPT-4o, enhancing its adaptability for real-time deployment scenarios.

Programming and instruction-following capabilities are significantly improved, reinforcing developer ecosystem growth. In SWE-bench Verified tests, GPT-4.1 achieved an accuracy of 54.6%, representing a 21.4 percentage point improvement over GPT-4o. The model demonstrates particular strength in multilingual code generation and debugging. It also outperforms most models in the Scale MultiChallenge benchmark, which evaluates instruction compliance and structured outputs. With enhanced tool-calling and function execution capabilities, GPT-4.1 is poised to accelerate AI adoption in low-code development, automated operations, and financial modeling.

A tiered product strategy enables downward expansion—Mini and Nano target edge scenarios. GPT-4.1 Mini and Nano are optimized for lightweight inference and edge deployment. Notably, the Nano version offers ultra-low cost at just \$0.12 per million tokens, making it suitable for IoT devices, industrial robotics, and embedded systems. OpenAI is thus building a "general model + tiered deployment" framework, potentially increasing model penetration and reinforcing its leadership in the AI platform ecosystem.

That said, we believe this week's product updates are critical for OpenAI, but its current releases appear to lag behind in multimodal capability and inference hardware. In contrast, Google's Gemini 2.5 excels in multimodal processing, supporting seamless integration of image, video, audio, and code inputs, and has outperformed GPT-4.0 in multiple benchmarks such as MME and MathBench. Google also recently unveiled the TPU v7 (Ironwood), further solidifying its lead in AI inference hardware. Meanwhile, the scale and timeline of OpenAI's "Stargate" compute initiative remain uncertain, and OpenAI continues to rely heavily on Microsoft Azure for compute resources. If OpenAI fails to deliver substantial updates this week in multimodal capability, inference efficiency, or tooling ecosystem, it may face intensified competition ahead.

Risk Factors: 1) AI demand falls short of expectations; 2) Geopolitical tensions disrupt supply chains; 3) Slowdown in AI data center construction.

附录 APPENDIX

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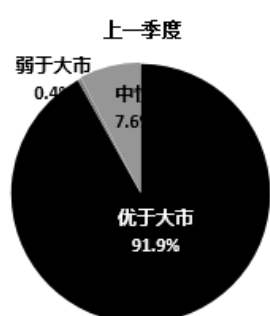
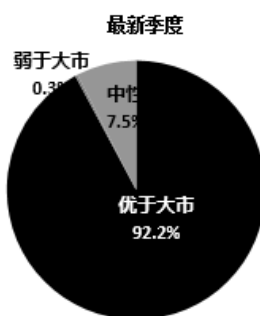
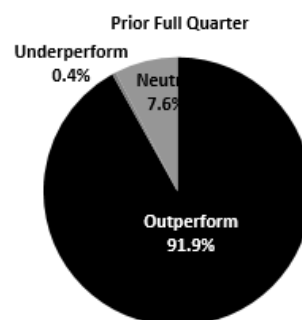
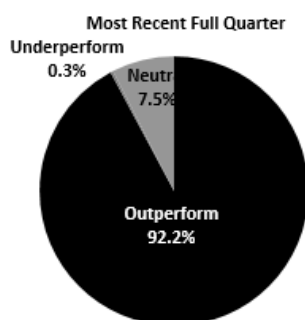
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