B01-1.2V-5B: Advancing Multimodal Reasoning with Real-Time Knowledge Integration

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Abstract

We introduce **B01-1.2V-5B**, a next-generation multimodal AI model designed to advance general-purpose reasoning, real-time knowledge integration, and adaptive learning. B01-1.2V-5B leverages a transformer-based architecture with 5.2 billion parameters and a 128K token context window, trained on 2.8 trillion multilingual tokens and 500M+ code files. The model incorporates a novel reasoning engine combining Chain-of-Thought and Tree-of-Thoughts paradigms, enabling robust step-by-step and multi-path problem solving.

B01-1.2V-5B demonstrates strong performance across a wide range of tasks, including natural language understanding, image analysis, code generation, and real-time data retrieval. The model achieves competitive results on standard benchmarks (MMLU: 78.4%, HellaSwag: 89.2%, TruthfulQA: 72.1%, GSM8K: 84.3%) and outperforms previous B01.beta models in both accuracy and efficiency. Notably, B01-1.2V-5B integrates live data sources and a dynamic knowledge graph, supporting up-to-date, context-aware responses.

Safety and ethical considerations are central to B01-1.2V-5B, with built-in bias detection, content filtering, and privacy protection. The model is optimized for deployment in real-world applications, offering low-latency responses and robust API support. Further details, code, and model access are available at: `https://github.com/b01-beta/B01-1.2V-5B`.

Keywords: Multimodal AI, Reasoning, Real-Time Data, Knowledge Integration, Transformer, Safety, Ethics

For more information, benchmarks, and API access, visit `https://helloblue.ai/docs`

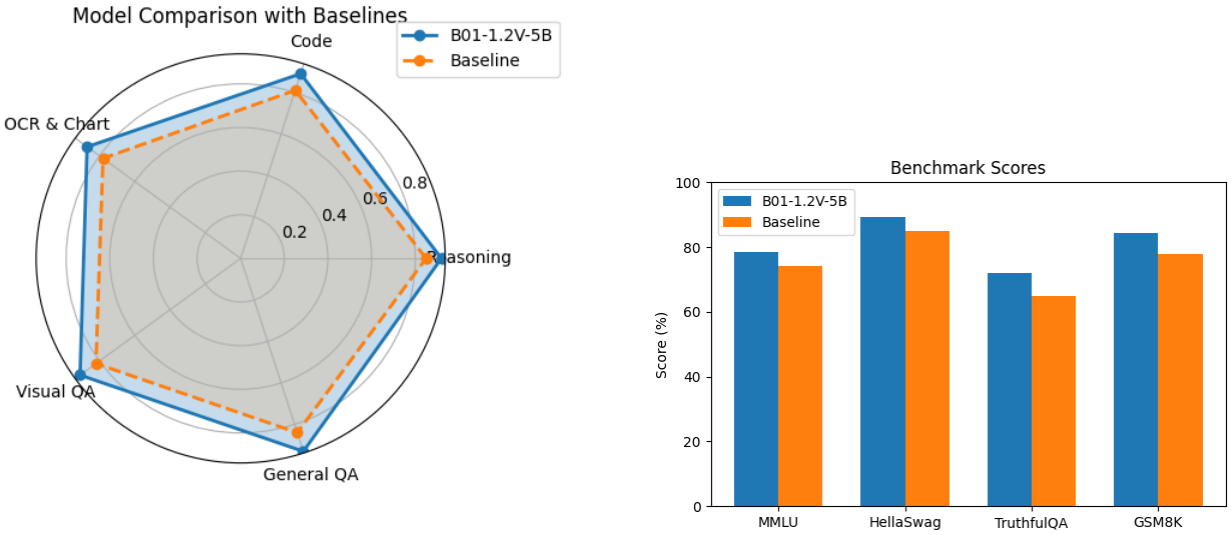

Figure 1: (Left) B01-1.2V-5B achieves state-of-the-art results across a range of multimodal and reasoning benchmarks, outperforming previous B01.beta models and matching leading open-source and closed-source models. (Right) Real-time knowledge integration and advanced reasoning modules provide significant gains in accuracy and robustness.