

SkillForgeBench: Evaluating Agent Reliability Grounded in Agent Skill Specifications

PRIMARY

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Abstract, verbatim in the parts quoted by this edition: "Comprising 842 sandboxed tasks across five major professional domains, SkillForgeBench reveals a steep capability hierarchy among eight mainstream agents, led by Opus 4.8 (40.9% strict completion). Requiring all constrains satisfaction uncovers severe capability bottlenecks across all model tiers that remain masked under individual rubric pass rates (70.0% to 85.7% vs. 12.6% to 40.9%). Crucially, under the external guidance from skills, top-tier agents obtain larger gains than low-tier agents (i.e., 19.2% for Opus 4.8 vs. 5.8% for Haiku 4.5). Finally, agents satisfy process rubrics far less frequently than completion rubrics (under 3% for Haiku 4.5), proving that completion-only checks overestimate real-world agent reliability."

The three co-designed stages named in the abstract are Resource Preparation, Skill-driven Task Synthesis and Holistic Evaluation Design; the last "translates skill-embedded requirements into fine-grained completion and process rubrics to enable strict requirement-level scoring".