

Five Sigma redefines claims management with LangChain and Google's Vertex AI



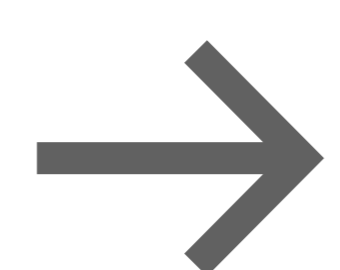
Five Sigma recently introduced Clive™ - the insurance industry's first AI Claims Adjuster. This impressive demonstration of GenAI in the insurance industry is built using LangChain and Google Cloud's Vertex AI



Meet Clive, Five Sigma's AI claims adjuster

[Five Sigma](#) is a leading Insurance Technology startup that has been at the forefront of artificial intelligence innovation for over 7 years. Built even before the ChatGPT and GenAI revolution, Five Sigma offers an AI-native claims management platform (CMS) to streamline every step of insurance claims handling for insurance companies, Managing General Agents (MGA), and Third-Party Administrator (TPA).

In July 2024, Five Sigma introduced Clive™, the insurance industry's first AI Claims Adjuster. Clive offers insurers advanced AI capabilities and automation on top of whatever claims management system they're already using – so insurance providers can keep working with legacy or existing claims systems while also experiencing faster and more accurate claims handling.



Clive frees up human claims handlers to focus on areas where a human touch is valuable - like complex decision-making and empathic customer service.

- 1 AI Training (Insurer's SOP)
- 2 Expedited Claim Intake (FNOL)
- 3 Automatic AI Analysis
- 4 AI Recommendations
- 5 Human Adjuster Decision



↑ 25%

increase in adjusters' productivity

↓ 80%

reduction in errors

↓ 10%

shorter claims cycle time

Clive is equipped with comprehensive knowledge about insurance workflows, as well as Five Sigma's proprietary data on claims handling with policyholders and other stakeholders (lawyers, repair shops, and other departments within the insurance company), and effective paths for claim resolution. On top of this, Five Sigma adds customers' unique Standard Operating Procedures (SOP) that define the guidelines for handling claims at a specific company across various lines of business.

As a result, Clive can analyze, handle, and even execute any individual claim by itself. And wherever human intervention is needed, Clive assists adjusters with AI-powered recommendations, like document analysis, next steps, personalized communication, transcribing and summarizing interactions, and more.

Through its advanced AI engine, Clive gives meaningful insights on coverage, flags potential discrepancies for risk management and leakage prevention, and guides adjusters throughout the claims process to reach faster, fairer settlement decisions.



Clive behind the scenes

Clive's tech stack lets it perform like the most experienced insurance claims agent – with intelligence, data protection, and scalability.

Google Cloud and Vertex AI - Clive's brain

Five Sigma leverages Vertex AI's high availability, scalability, and data protection.

Five Sigma uses Vertex AI and its Gemini models along with its proprietary know-how in order to understand both structured and unstructured claims data, in new ways that were not possible just a few months back. The multi-modality of Gemini allows Clive to understand text, images, voice, and video data, and to quickly incorporate it all in its claim analysis and insights.

“Our partnership with LangChain and Google Cloud has been instrumental in bringing Clive to life. By integrating LangChain's cutting-edge NLP capabilities with Google Cloud's scale and AI models, we've developed an AI product that transforms how insurance companies manage claims. LangChain's technology enables us to offer an intuitive, conversational interface that empowers claims adjusters to work faster and resolve more claims in a given time.”



Michael Krikheli
Co-Founder and CTO
of Five Sigma



LangChain - Clive's human reasoning

Clive deals with vast amounts of data and human users - including insurance company's leaders, claims adjusters, and even policyholders. To orchestrate its operations and turn data into insights, the Five Sigma team used [LangChain](#).

LangChain helps users build context-aware reasoning applications, providing a standard model interface that enables Clive to interact with its users in an intuitive way. Through Five Sigma's integration with LangChain, users can communicate with Clive in a simple chat interface. LangChain allows Clive to understand and respond to questions and requests intelligently, making interactions with the AI claims adjuster intuitive and natural.

LangChain's seamless integration with Google Cloud offers developers a comprehensive toolkit for building advanced agentic AI applications, leveraging powerful vector stores and utilizing both first- and third-party models.





Five Sigma is ensuring Clive evolves continuously

Five Sigma also relied on [LangSmith](#), an all-in-one observability platform built by the LangChain team, to curate datasets and run customizable, out-of-the-box evaluators. LangSmith helped Five Sigma automate their testing processes and make continuous improvements to Clive's response quality. All of this is done within Google Cloud, so training data is protected.

"The collaboration with Five Sigma on Clive is a great example of how natural language processing can be leveraged to transform an entire industry. After rigorous testing with LangSmith, the Five Sigma team has confidently deployed Clive into production and helped insurers handle claims smarter and faster. We're excited to see Clive's impact in the insurance tech space."

- Harrison Chase, Co-Founder and CEO at LangChain

By testing in LangSmith, Five Sigma could ensure that changes to AI models, workflows, and prompts consistently met their company's rigorous quality standards before deploying to production. For example, when summarizing claims, the Five Sigma team developed a set of custom evaluators to ensure their summaries were factually accurate, provided complete answers and reasoning, and did not have LLM hallucinations.

A pivotal component of LangSmith is its ability to easily collect and attach feedback to traces, which plays a crucial role in Clive's ongoing development. By integrating user feedback directly into operational runs and traces, Five Sigma can continuously refine Clive's performance, creating a feedback loop for the team to quickly pinpoint and resolve issues.

Just the beginning

Looking ahead, Five Sigma is working on exciting developments for future enhancements of Clive. Among other endeavors, the company is testing a controllable agent orchestration framework, to create reliable agentic workflows using multiple AI agents.

With the strong partnerships forged with Google Cloud and LangChain, Five Sigma is well-positioned to continue innovating at a rapid pace and accomplish its vision of transforming the insurance industry in the AI era.

For more information visit
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