



EXL launches specialized Insurance Large Language Model (LLM) leveraging NVIDIA AI Enterprise

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EXL LLM for Insurance outperforms leading pre-trained models on accuracy across wide range of claims and underwriting related tasks

NEW YORK, Sept. 26, 2024 (GLOBE NEWSWIRE) -- EXL [NASDAQ: EXLS], a leading data analytics and digital operations and solutions company, announced the launch of the EXL Insurance LLM, an industry-specific LLM. Building on EXL's [recently announced initiative with NVIDIA AI Enterprise](#), the EXL Insurance LLM is the first industry-specific LLM created to support critical claims and underwriting-related tasks, such as claims reconciliation, data extraction and interpretation, question-answering, anomaly detection and chronology summarization.

The EXL Insurance LLM was developed to address the highly specialized needs of the insurance industry, which has struggled to leverage off-the-shelf, general LLMs that lack fine-tuning of private insurance data and domain-specific understanding of business process operations. Generic LLMs also fail to address the nuanced challenges faced by insurance companies during claim adjudication, leading to inefficiencies, high indemnity costs, claims leakage, longer settlement timelines, and increased compliance risks. By focusing exclusively on insurance-related tasks, EXL has incorporated its deep knowledge of the insurance industry and highly tailored proprietary data to create the industry's most accurate LLM.

This level of specialization has become critical for ensuring accuracy, reducing cost and improving consistency in industry-specific AI applications. According to [Gartner](#), more than 50% of the GenAI models that enterprises use will be specific to either an industry or business function by 2027 — up from approximately 1% in 2023. In internal studies, the EXL Insurance LLM achieved a 30% improvement in accuracy on insurance tasks, surpassing top pre-trained models, such as OpenAI GPT4, Claude and Gemini. It was built by EXL AI Labs using the full-stack NVIDIA AI platform.

EXL customized the LLM using the NVIDIA NeMo™ end-to-end platform, part of the NVIDIA AI Enterprise Software Platform, for training, customization, and deployment, and to handle question-and-answer tasks and summarization. The training process involved special adapters and was done through low-rank adaptation (LoRA) and supervised fine-tuning (SFT). It was tested on single and multi-node setups to optimize performance, utilizing advanced parallel processing methods using the NeMo framework on H100 GPUs. This approach was crucial for handling this extensive dataset.

EXL used NVIDIA Triton Inference Server™ to maximize GPU power for single and multi-node setups. The system also includes retrieval-augmented generation (RAG) with NVIDIA NeMo Retriever microservices to handle long documents for questions and answers. The EXL Insurance LLM utilizes NVIDIA Nemo Guardrails to better manage input and output, creating a smoother user experience.

"With 25 years of expertise in processing medical records data for bodily injury, workers' compensation, and general liability claims, EXL has developed curated data sets with domain-specific tagging, labeling, and question and answer pair creation for claims adjudication to fine-tune our models," said Anand "Andy" Logani, EXL's executive vice president and chief digital officer. "The EXL Insurance LLM offers 30% greater accuracy and 30% lower costs than generic LLMs while ensuring full regulatory compliance."

Specific tasks supported by the EXL Insurance LLM include the following:

- **Structured and Unstructured Data Ingestion:** EXL Insurance LLM is able to aggregate and reconcile hundreds of thousands of de-identified medical records, claims histories, hand-written notes, call logs, and other claims and underwriting-related information.
- **Contextual Classification and Triaging:** Data and insights extracted using the LLM are automatically categorized and fed into a wide range of core functions, ranging from claims adjudication to provider engagement to payment integrity to customer service functions.
- **Conversations and Insights from Data:** Insights, question-answering and summary data drawn from the LLM empower faster, more accurate negotiations with providers, more robust assessment of anomalies and inaccurate payments and more personalized, real-time conversations with customers.

The EXL Insurance LLM was developed by the EXL AI Labs, a dedicated team of AI and engineering specialists working across EXL's Analytics and Digital and industry business units to accelerate the development of enterprise AI solutions. The EXL Insurance LLM will continue to evolve, expanding use cases across the insurance value chain, including underwriting, premium audit, subrogation, and finance. The comprehensive domain expertise within the LLM will integrate insights from all value chain components, further enhancing its precision and applicability.

For more information about the EXL LLM for Insurance, please visit [here](#). To learn more about EXL's NVIDIA partnership, please visit [here](#).

About EXL

EXL (Nasdaq: EXLS) is a leading data analytics and digital operations and solutions company. We partner with clients using a data and AI-led approach to reinvent business models, drive better business outcomes and unlock growth with speed. EXL harnesses the power of data, analytics, AI, and deep industry knowledge to transform operations for the world's leading corporations in industries including insurance, healthcare, banking and financial services, media and retail, among others. EXL was founded in 1999 with the core values of innovation, collaboration, excellence, integrity and respect. We are headquartered in New York and have more than 55,000 employees spanning six continents. For more information, visit www.exlservice.com.

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The logo for EXL, consisting of the letters 'EXL' in a bold, orange, sans-serif font.

Source: ExlService Holdings, Inc.