



Trader/relationship manager dashboard

Business context: Investment decisions can be intricate and lengthy



Varied sources

Traders and relationship managers utilize multiple resources such as SEC filings, news services, financial databases, and analyst reports to determine market trends and competitive dynamics



Complexity

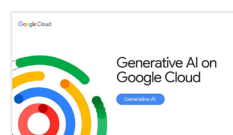
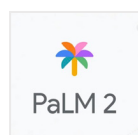
Analyzing financial health, assessing management performance, identifying red flags, future plans, strategies, and competitive analysis can be very complex



Time consuming

Spend multiple days doing topic research before client meetings

We use Alphabet's SEC files to extract critical information about company performance.



What makes processing SEC files difficult?



Unstructured data:

SEC filings contain mostly unstructured text, which requires advanced NLP techniques to extract, interpret, and standardize meaningful information that could influence stock prices.



Linguistic complexity:

Filled with legal and financial jargon. Extracting insights from this specialized language and accounting for the context requires sophisticated NLP models beyond keyword extraction or sentiment analysis.



Temporal dynamics:

Temporal variability and aligning it with stock price movements contributes to technical complexity.

We use Google Generative AI, VertexAI, and PaLM 2 LLM to solve technical challenges



Interpretation:

Transform SEC filings into structured data, interpreting complex legal and financial terminology.



Contextual understanding:

Semantic understanding of business narratives and risk factors influencing stock prices.



Temporal analysis:

Capture patterns aligned with stock price movements for predictive modeling.

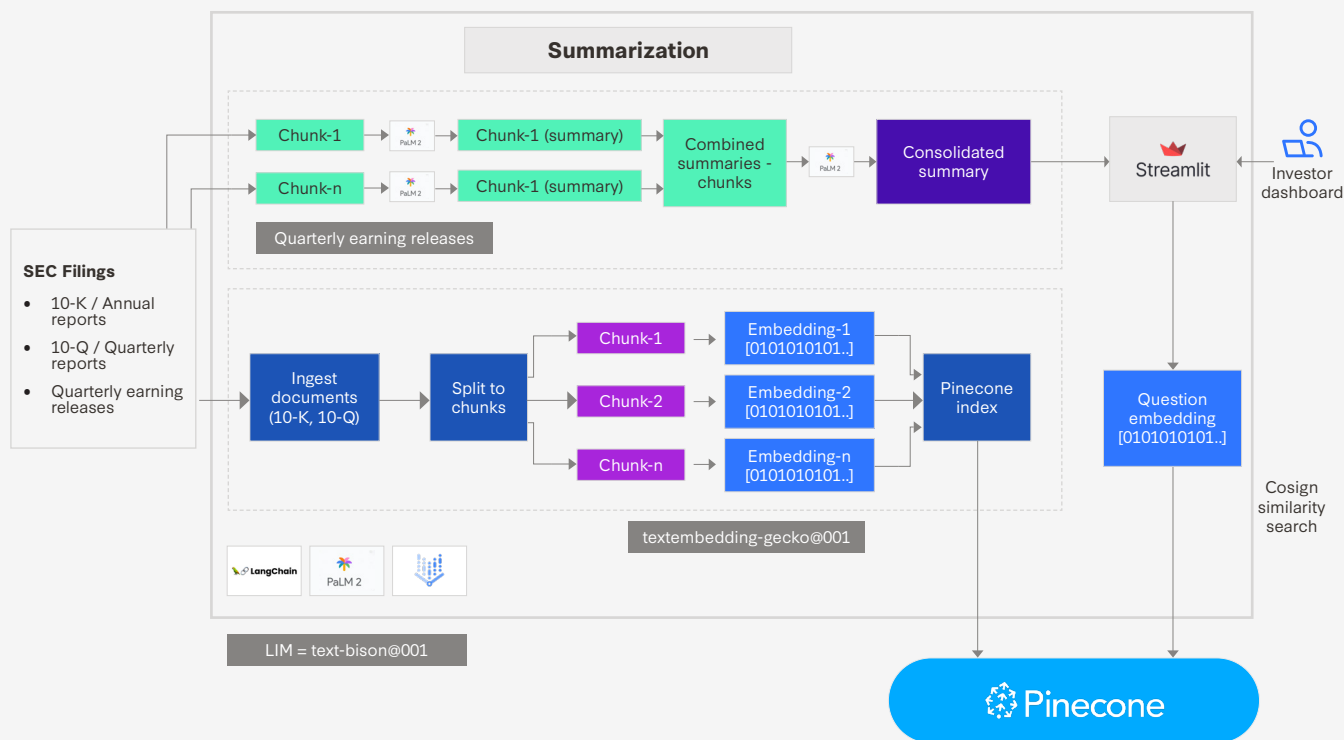
Trader/relationship manager dashboard: technical overview

Our generative AI solution based on Google's Generative AI Capabilities is expertly designed to distill critical insights for Traders and relationship managers, enhancing decision-making and client engagement

- Delivering an extensive summary of various SEC filings, selectively extracting the most pertinent data and information for precise interpretation.
- The output is subsequently utilized to create a comprehensive dashboard.
- Enabling semantic search and interactive chat functionality on unstructured text and tabular data within SEC filings, enhancing data accessibility and usability.

Solution architecture – demo tech stack

- Google VertexAI and PaLM2 LLM
- LangChain
- Pinecone Vector Store
- Streamlit for Web UI



About Virtusa

Virtusa Corporation is a global provider of digital engineering and technology services and solutions for Forbes Global 2000 companies in the financial services, healthcare, communications, media, entertainment, travel, manufacturing, and technology industries worldwide. At Virtusa, digital engineering is at the heart of everything we do. We are 35,000 builders, makers, and doers that partner with customers to reimagine enterprises and creatively build solutions to the most pressing business challenges that move them to the forefront of their industries.

Virtusa's unique "Engineering First" approach means never presenting an idea we can't execute. With deep industry expertise and empowered agile teams made up of world-class talent, we think about execution early in the process, because the earlier you think about execution the earlier an idea can have an impact. Solving from the inside out enables businesses to respond swiftly to changing needs with improved quality, lower costs, and lasting results.

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