

Sollum - Revolutionizing Photobiology with AI-Driven Insights

Bitstrapped implemented a streamlined pipeline to process academic research papers, summarizing and extracting key insights, and built a functional API allowing Sollum's network to retrieve accurate responses to tough questions, based on the tailored

The challenge

In its mission to revolutionize Light Emitting Diode (LED) grow light solutions via groundbreaking photobiology R&D, Sollum faced hurdles in extracting critical data from extensive academic research. In its quest for patented innovative AI solutions, the challenge was to make critical information accessible to greenhouse producers and agronomists looking for prescribed methods to increase yields.

The solution

An LLM QA Retrieval system integrating Vertex AI Matching Engine, archiving embedding vectors via the PALM LLM base text model, text-bison@32k. Stored data, segmented into 4,000-token chunks, aided query processing which then generated embeddings, extracting the most relevant data chunks for user context - fed into the LLM model through a structured prompt, leading to the final results.

The result

We accomplished a tailored Large Language Model (LLM) model that quickly became a game-changer for Sollum and their efforts in agriculture, LED lighting solutions, and photobiology. AI-driven solutions revolutionized how insights were extracted and utilized, empowering agronomists to make data-driven decisions swiftly, resulting in enhanced crop yields and a sustainable future.

This was a great engagement where we introduced a breadth of new and innovative solutions offered by GCP, for our mutual client Sollum Technologies. It presented potential opportunities for further collaboration with the objective of launching this GenAI proof of concept to production and working to commercialize it for vested stakeholders in the cultivation industry.



About Sollum Technologies

As the provider of the only smart LED grow light solution that dynamically recreates and modulates the full spectrum of the Sun, Sollum's technology enables the creation of custom light recipes that adapt to every crop's needs and growth cycle for greenhouse growers through innovative R&D, regardless of their native climate or location.

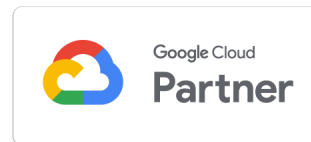
Vertical/horizontal solution: Agriculture

Primary project location: Canada



About Bitstrapped Inc

Bitstrapped is a Google Cloud Partner specialized in the training and transformation of businesses through Data and Machine Learning platforms.



Products

Google Cloud Platform