

# CASE STUDY



improving 



## Public Health Agency

### AI-Powered Patient Record System

#### About Us:

As a trusted Google Cloud Partner, Improving is committed to providing our commercial and public sector clients with transformative services and solutions on Google Cloud Platform (GCP). With our expertise in open-source technologies, Improving's Google Cloud team has been instrumental in developing and delivering best-in-class services and solutions that have had a profound impact on how our enterprise and public sector clients have navigated their digital transformation journeys. Our expertise on Google Cloud Platform spans a range of AI/ML & GenAI, data analytics, platform engineering and application development services, with a focus on providing our clients with a secure, scalable, and strategic pathway to the cloud.

#### Overview:

Improving collaborated with a public health agency in British Columbia to develop an AI-powered, next-generation patient records search system. The project aimed to enhance the efficiency and effectiveness of healthcare delivery by leveraging Google's Healthcare API and Vertex AI Search for Healthcare.

#### Business Problem:

Our public health agency client faced significant challenges with their existing Care Connect system, which was outdated and inefficient in managing large volumes of patient data. Clinicians experienced disruptive and frequent delays in retrieving relevant patient records, affecting the timeliness and quality of healthcare services.

#### Our Solution:

We designed and implemented a new AI-powered patient record system with a user interface similar to the existing Care Connect system for ease of adoption while integrating advanced functionalities such as semantic search and record summarization. Our team's approach included rigorous testing and feedback loops with end users.

#### Business Benefits:

- Enhanced efficiency in accessing relevant patient records.
- Cost savings through improved operational efficiency.
- Innovative healthcare delivery with GenAI.
- Improved user experience with a familiar UI and enhanced features.
- Better decision-making with quick access to summarized information.
- Scalable cloud-based solution for future demands

#### Technologies Used:

- Google Healthcare API
- Google Vertex AI Search for Healthcare
- Scala
- JavaScript
- Google Cloud Build and GitHub
- Terraform



Cloud Healthcare API



Google Cloud Build



Vertex AI



Terraform



#### Partnerships:

Our collaboration involved working closely with our public health agency client and Google Cloud teams. Google Cloud provided the underlying technologies and support through their customer engineering and product teams.

#### Conclusion:

This project exemplifies Improving's ability to deliver cutting-edge healthcare solutions through strategic partnerships and innovative use of technology. Our approach addressed our client's immediate needs and set the stage for future advancements in healthcare delivery, showcasing our unique capability to transform complex problems into streamlined, impactful solutions on Google Cloud.