# UPMC Enterprises' Alexandria Charts Technology Powers Astrata's Advanced NLP Solutions

# **Client Profile**

Founded in 2021, Astrata is a health care technology startup specializing in digital quality solutions for health plans, addressing real-world informatics and scaling challenges. Astrata's flagship product, Chart Review, leverages advanced natural language processing (NLP), honed over a decade by co-founders Rebecca Jacobson and Girish Chavan, alongside their expert collaborators and partners. Through its Al-driven solutions, Astrata revolutionizes how the health insurance industry measures and enhances health care quality, empowering health plan customers to deliver value-based care across diverse populations.



### Challenge

Unstructured data presents significant complexities-simply storing it in a database falls short of the sophisticated requirements that modern health care applications demand to generate meaningful insights. Due to the high capital investment required to develop effective solutions for managing clinical notes, many health care enterprises avoid building their own systems. As Astrata advanced the development of Chart Review with plans to deploy it across health plans and accountable care organizations, the company faced a challenge: finding a platform capable of efficiently saving, indexing, and managing vast amounts of unstructured clinical notes which enabled NLP to extract critical information and insights. The ideal platform needed to be specifically engineered to handle unstructured health care data and scalable to accommodate Astrata's growth. Astrata identified a clear gap in the market—a lack of advanced, integrated solutions that could effectively manage unstructured data repositories and power NLP technologies.



# Solution

Astrata found the ideal platform in Alexandria Charts, a solution developed at UPMC Enterprises. The vision behind Alexandria Charts is to empower developers with a robust platform and API toolkit, enabling them to build and accelerate next-generation health care solutions. By leveraging Alexandria Charts, applications can access the estimated 50% to 80% of patient data captured in unstructured clinical notes, charts, narratives, and referral documents. The platform facilitates the aggregation, normalization, and processing of this data into high-quality, actionable insights. In 2021, Astrata licensed Alexandria Charts as the backend platform for storing clinical notes and metadata. This mature, secure, and reliable solution allowed Astrata to efficiently index, store, and retrieve vast amounts of unstructured data for its growing list of health plan clients.



#### Impact

By partnering with UPMC Enterprises and adopting Alexandria Charts, Astrata was able to build its NLP technology on a platform specifically designed for unstructured data and accelerate solution development. This partnership provided Astrata with the flexibility to offer its solution as either a self-hosted or SaaS-based product service, enabling health plans to store customer data, process it through Astrata's NLP technology, and return normalized insights to enhance health care quality and value-based care. Licensing Alexandria Charts was a natural fit. It offers critical features needed for handling unstructured clinical data, that are unlike anything else in the market. I would highly recommend Alexandria Charts if you need a scalable and performant clinical data repository solution to build NLP powered products on."

- Girish Chavan, Chief Technology Officer, Astrata

Since its launch, Astrata has achieved significant growth, powered by its ability

to integrate Alexandria Charts as an advanced unstructured data management platform. This integration has not only optimized Astrata's data storage and processing capabilities but also positioned the company at the forefront of data-driven health care innovation. As a result, Astrata has strengthened its ability to help health plans enhance quality measurement, transition to value-based care, and deliver improved patient outcomes and operational efficiencies in an increasingly digital health care landscape.

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Developed by UPMC Enterprises and launched in 2021, Alexandria Charts is an API-based, developer-centric solution designed for managing unstructured health care data. UPMC Enterprises uses this solution to store, index, and manage over 250 million clinical notes from 9 million annual patient interactions since 2021.

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