



PATTERN
COMPUTER®



Why Pattern Discovery?

“Pattern discovery” involves the discovery of high-value patterns within complex and unstructured data sets; patterns that you aren’t even looking for, unconstrained by data type or the biases or predispositions of those programming the system. It’s the difference between programming a facial-recognition tool to scour millions of images to ID a person – using conventional pattern recognition techniques – and designing an integrated system to discover previously unknown patterns. Patterns of, say, high-dimension gene interactions within the most unstructured of data sets (e.g. internist office visit notes for healthy and unhealthy patients, alike). All done under a broad remit of optimizing clinical diagnosis, sub-classification, and treatment of, for example, patients with breast cancer.

Check out our newest insights at <https://www.patterncomputer.com/success-stories/>

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WHO WE ARE

We are a pattern discovery company. We find novel patterns in complex data that cannot be discovered using conventional techniques or tools, even on exascale computers.

We are not just another AI or machine learning (ML) company: we developed a proprietary, end-to-end system for generating new insights from data to help you transform your research or business. Our early results are helping us forge partnerships with world-class organizations and experts in oncology, systems biology, and precision medicine. Our platform is generating results that aim to advance industry standards in areas such as breast cancer prognostics and the detection of healthy versus disease-state pathways in cancer, microbiome, and human gut disorders. And we are expanding into other tech domains – including aviation, cybersecurity, and manufacturing.



HOW WE’RE DIFFERENT

We have brought together subject matter experts across a multitude of tech and scientific domains with the mission of bridging the prevailing gaps in ML to deliver breakthrough discoveries, beginning in our first domain of personalized medicine. We’ve designed an integrated system optimized across 3 areas:

- 1. Data Prep. We clean data during ingestion in a manner that greatly accelerates our query runs and enhances our confidence scores (probability of direct correlations);*
- 2. Discovery Engine. We apply leading ML techniques – and have built a series of proprietary algorithms – that couple causal data matching with speed, accuracy, and relevance; and*
- 3. Preservation & Enhancement of Logic Flow. We display results in clear, multi-dimensional format, and in a manner that helps preserve the decision flow and interpretability of the outputs – thus prying open the so-called “black box” of ML.*

We have patents pending for our proprietary methods across each of these areas. Below is a depiction of our Pattern Discovery Engine™:

