Eureqa®: Point-and-Click Modeling for Financial Analysis

Nutonian is the Machine Intelligence™ company. Its Eureqa application empowers SAS and MATLAB professionals to automatically discover analytical models via sophisticated evolutionary algorithms requiring no human intervention. Armed with automated, transparent answers about what’s causing business outcomes, Eureqa users can make mission-critical changes to strategies and processes; collaborate with others by sharing interactive analyses; and leverage the results in tools like SAS, Excel, Python and R. While others are attempting to predict the future, you’ll be busy changing it.

Data Science for the Masses

Despite getting swamped with seemingly infinite amounts of data, financial analysts are expected to make decisions more quickly and accurately than ever before. How can CPAs and CFAs possibly incorporate all of the right data into forecasting models? How can analysts consistently outperform their peers, when everyone has access to similar information, and they’re not leveraging advanced quantitative strategies like machine learning algorithms? And how can they be expected to do all of this quickly, when managers wanted an answer yesterday?

Welcome to the complex world of finance. Nutonian’s Eureqa was created to become an analyst’s best friend: a data scientist in a box. Eureqa is an automated analytics application that builds accurate and understandable financial models, much faster and more scalable than existing technologies. Equipping every analyst with advanced data science capabilities, Eureqa can predict what will happen to any “target variable” you want to understand – cash flow, earnings, stock price, etc. – and explain in plain English why it’s likely to happen. Seamlessly import any data that could theoretically influence the outcome (market data, financial data, economic data, census data, weather data, etc.), and Eureqa will automatically compute billions of potential predictive models, only presenting the user with the best ones. Eureqa will tell you which “input variables” matter, how much they matter, and what knobs you can turn to maximize your desired outcome.

Where Artificial Intelligence Meets Business Intelligence

Eureqa distinguishes itself as the only analytics application that combines three critically important features for financial analysts:

- **Automation** – Eureqa automates the model-building process. No need to specify model structure, write code or know statistics theory. Simply formulate a problem, collect/load data into Eureqa, hit “Go”, and interpret the results.

- **Fast Results** – Uploading a data set and reviewing extremely powerful solutions now takes minutes instead of weeks or months.

- **Easy to Understand** – Eureqa finds the simplest solutions and presents them in plain English... no 1,000 lines of code or black box answers.

Have more advanced analysts? Technical users can leverage the power of Eureqa directly through a fully supported and straightforward API. Increase productivity of your organization’s analyst community by automating custom analyses for their consumption. Provide automated reports to managers and decision makers, which they can view directly in the Eureqa interface with a “viewer” permission level. You can even integrate directly with SAS, Excel, Python and R.
Powerful Answers

Via an intuitive, point-and-click interface, analysts can now leverage cutting-edge machine intelligence and interpret the results without needing degrees in computer science or statistics. Eureqa has seen mass adoption across a wide variety of verticals and use cases. Below are a few examples:

Bay Area Hedge Fund

In the hedge fund industry, a Bay Area firm leveraged Eureqa to predict medium-term stock trajectories based on thousands of input variables, and generously beat market returns.

Fortune 50 Retailer

In a matter of minutes, a Fortune 50 retailer improved sales forecasting accuracy from 65% to 92%, enabling them to predict cash flow, understand what variables “drive” their sales, and realign inventory and marketing spend to maximize future revenue. They estimate that following Nutonian’s recommendations for inventory and marketing inputs will boost sales between $520,000 - $2,600,000 per store per year.

Mead Johnson Nutrition

As one of the world’s leading manufacturers of baby formula, Mead Johnson attempts to solicit new customers with direct mailings to expectant mothers. The samples are both nutrient-rich and expensive to produce; hence, they want to be extremely targeted. With Eureqa, they are now able to merge >4,000 internal and external data attributes and automatically derive the finite (13) inputs necessary to maximize customer targeting. Their predictive accuracy improved by > 8%, which statisticians there dubbed a significant feat.

Fortune 1000 Retailer

Looking to maximize profits and understand customer traffic and demand, this Fortune 1000 retailer leveraged Eureqa to model the most effective staffing schedules per store based upon customer traffic, sales and marketing events. Eureqa was able to provide a per hour staffing model by location to optimize client satisfaction and profitability per transaction.

Profusion Analytics

Decreasing customer churn while reducing operational expense, Profusion Analytics relies upon Eureqa to support several of the largest cable providers in the country. Eureqa enables Profusion to pinpoint problems quickly and accurately, often before the customer is aware an issue existed. This use of sensor data and Eureqa’s machine intelligence has dramatically reduced the overhead associated with supporting a broadly distributed customer base.
Eureqa in Action

Manage your data, users and analyses in a single integrated platform, allowing for organization-wide collaboration. Running an analysis in Eureqa is simple and fast:

1. Drag a data set into the "Home" pane.

![Home pane image]

2. Answer a few basic questions about the problem you’re looking to understand. Select a target variable, select your input variables, and hit “Go”. Eureqa tests and rejects billions of potential models every second to help get you the right answers at the speed of thought.

![What do you want to know about? image]

3. Interpret the results. Our best model here provides 93% accuracy while remaining simple enough to act on. If we drill down, Eureqa will neatly articulate exactly what this model is telling us, without having to understand the advanced math behind it.

![Interpret results image]

4. Interact and Iterate. Deriving a model isn’t the end; Eureqa enables you to interact with the outcome. Apply your domain expertise to explore and iterate on the models. Use the "Interactive Explainer" to see how changes in inputs impact your models in real time.

![Interactive Explainer image]

5. Compile custom reports and socialize insights. Eureqa’s unique reporting functionality allows users to build reports that combine fully interactive components from Eureqa’s modeling interface with custom text, external images and highlighting. Tell your story the way you see it, using impressive visuals.

![Quantitative Analysis image]

Now, the ability to extract incredible value and predictive capabilities from data is available to anyone with an iPad, Android, PC, Mac or Linux machine. Start your free trial at nutonian.com.

ABOUT NUTONIAN

Nutonian is the Machine Intelligence™ company. Its Eureqa® application empowers business professionals to automatically discover analytical models via sophisticated evolutionary algorithms requiring no human intervention. With more than 80,000 installations globally, Eureqa’s vertically-focused application modules compute millions of potential solutions every second of every day. Its accuracy, time-to-understanding and scalability are unparalleled. Nutonian is Where Artificial Intelligence Meets Business Intelligence™.