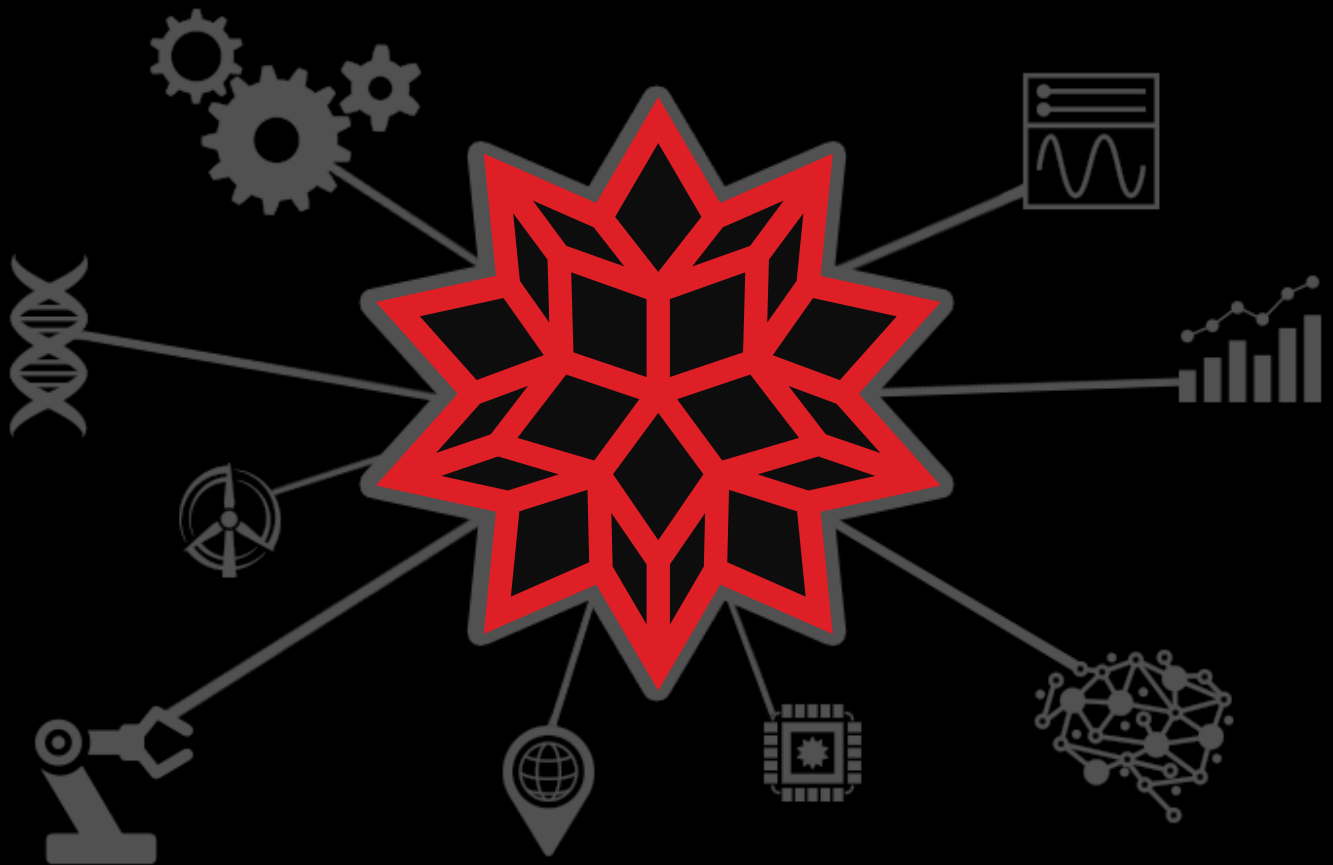


WOLFRAM TECHNICAL CONSULTING



Computational Intelligence Applied.
Our Experts, Your Projects—Any Size, Any Level.



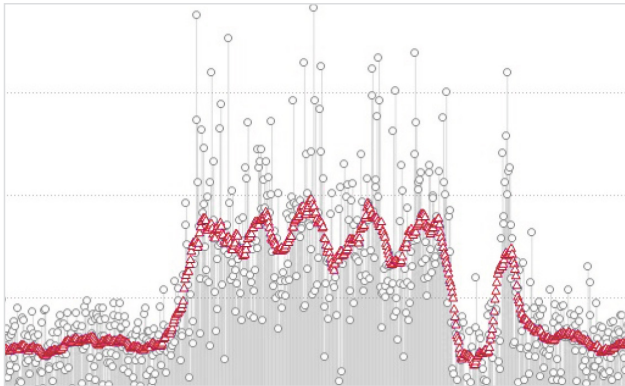
Wolfram Consulting Services

At Wolfram, we know what's possible with computational technology because we are global leaders in creating it. That gives us an unprecedented depth of expertise in applying it to consulting work.

We work on projects applying computation across **data science, business intelligence, science, engineering, finance, software development, authoring and publishing**. Whether you are starting a new project or need help with something in progress, you'll get unparalleled innovation and high-fidelity results with Wolfram Technical Consulting.

Recent Projects from Our Team

Computational intelligence in action

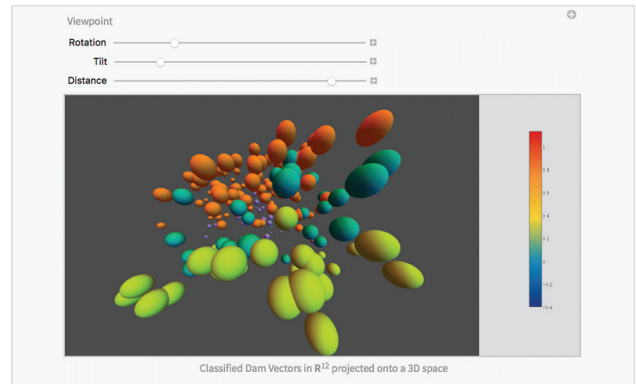


Improving Management Processes

We developed an interactive office management interface that accepts natural language queries using high-powered data processing and storage to assess key factors for improving operational effectiveness.

Technology Used

[Interface Construction](#) | [Structured Datasets](#) | [Time Series](#) | [Data Visualization](#) | [Programmable Linguistic Interface](#) | [Cloud Deployment](#)

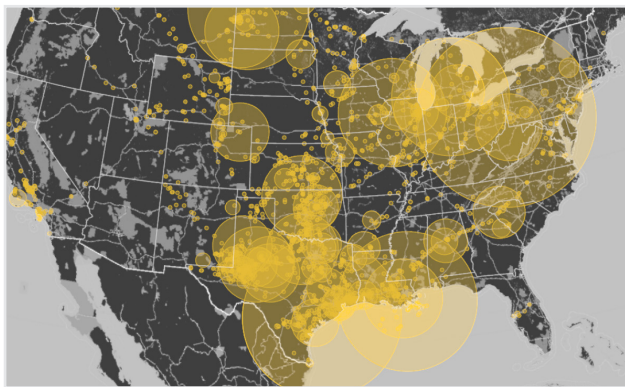


Analyzing Energy Production Potential

We extracted and analyzed high-dimensional operational data on hundreds of hydroelectric dams to determine underlying trends and develop better plans for future infrastructure projects.

Technology Used

[Engineering Data](#) | [Machine Learning](#) | [Structured Datasets](#) | [Statistical Modeling](#) | [Geographic Computation](#)

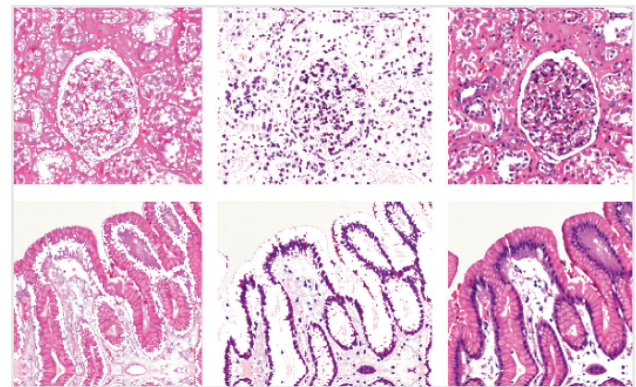


Reducing Hazardous Accidents

We deployed an interactive technical report of hazardous pipeline accidents over time, using advanced methods to categorize high-risk areas toward the development of better accident prevention policies.

Technology Used

[Data Import](#) | [Machine Learning](#) | [Geographic Computation](#) | [Time Series](#) | [Data Visualization](#)



Segmenting Microscopic Images

We developed a simple application for detecting differently colored components in microscopic images, allowing faster identification of different cellular structures in the lab.

Technology Used

[Image Processing](#) | [Segmentation Analysis](#) | [Color Processing](#) | [Data Transforms](#)

World-class experts innovating with true computational intelligence

Deep Domain Expertise in Computational Fields

From machine learning to data visualization to web deployment, we bring together specialized knowledge in key computation areas to optimize implementation.

Delivery of Functioning Software, Not Reports

Our interactive solutions give you the power to explore alternatives through live, data-driven deployments rather than confining you to pre-generated results.

Intelligent Application of Computational Technologies

Drawing from our diverse backgrounds, we utilize a variety of languages, packages and frameworks—WebGL, SPARQL, Node.js and more—to ensure the most thorough results.

Enterprise Computation, Accessible Anywhere

We offer tight integration with public and private cloud technology for immediate, secure access to your data and computations.

“By leveraging the full spectrum of methods and tools available, we constantly surprise clients with key insights, in areas they hadn’t considered.”

— Jon McLoone, Director of Technical Communication & Strategy

SPECIAL FOCUS

Multiparadigm Approach to Data Science

While most organizations are only scratching the surface of what's possible, our multiparadigm approach to data analytics and problem solving incorporates a wide range of cutting-edge algorithms and interdisciplinary methods to extract insights, meaning and decisions from data—dramatically extending the scope of problems computation can solve.

KNOW YOUR DATA SCIENCE AREAS:



Machine Learning

Generate adaptive models directly from complex datasets for object classification and predictive analytics, such as identifying which new advertising markets to enter.



Graph/Network Analysis

Explore and visualize systems of discrete relationships to analyze correlations and patterns, such as modeling demographics in a social network.



Report Generation

Display conclusions and insights in a styled, formatted document for meetings, ongoing projects or public information, like a quarterly earnings report.



Dynamic Visualization

Display data in custom styled plots, charts and infographics, making it human-readable and interactive for quick analysis and decision making.



Time Series

Model, simulate and forecast sequences of events over time to track long-term trends and make predictions, such as expected sales for the next holiday season.



Survival Analysis

Compute survival functions and lifetime distributions to analyze time-to-event data, such as the expected lifetime of a piece of industrial equipment.



Neural Networks

Create and train layered processing networks for deep analysis and processing tasks, such as recognizing defective items coming off a production line.



Semantic Text Analysis

Analyze underlying structures in linguistic data to clean up data and extract meaning, such as determining sentiment in customer comments.



Cluster Analysis

Group and analyze data based on similarity measures to extract underlying patterns and relationships, such as which customers are most similar to your top 100.



Data Semantics

Standardize various incoming datasets into a unified framework for easier analysis, such as consolidating data with different unit systems.



Queueing Theory

Model and simulate systems of queues to analyze waiting times and resource allocation, such as the optimal number of tellers at a bank branch.



Wavelets

Deconstruct data signals into constituent parts for advanced manipulation and filtering of specific features, such as eliminating background noise from sensor data.



Systems Modeling

Model physical, electrical and other systems to inform design decisions, like the most effective heating installation for a building.



Statistical Distributions

Fit historic data to parametric distributions to make inferences about the underlying events, such as the likelihood of a customer clicking through an ad.



Random Processes

Model the progression of a system over time to make observations and predictions about its behavior, such as analyzing peak hours at a particular store location.



Optimization

Use high-level mathematics to discover the “best values” for your data in relation to key criteria, such as the ideal allocation of portfolio assets.



Morphological Analysis

Use geometric transformations on images and higher-dimensional data to analyze spatial properties, such as counting particles in a microscopic image.



Computer Vision

Process visual data with machine learning and other sophisticated algorithms for analysis of features and patterns, such as identifying road hazards from a video feed.



Signal Processing

Process and filter images, audio and other collected data to analyze underlying patterns, such as detecting an irregular heartbeat from an ECG.



Custom Interface Construction

Make interactive onscreen controls for real-time adjustment of parameters in analyses and visualizations, allowing deeper exploration of data.



Parallel Computing

Distribute parallel tasks to available computation units for large-scale scientific computing and other high-performance applications.



Geocomputation

Use precise geolocation data and powerful geodetic computations to accurately examine real-world situations, such as visualizing optimal routes for a bus service.

$$\sum_{k=0}^{\infty} \frac{(a_1)_k}{(b_1)_k}$$

Mathematical Modeling

Drive systems of differential equations, recurrence relations and symbolic formulas with your data to test and refine models, such as computing the recovery rate of an epidemic.

Let's Take Your Project to the Next Level

Whether individual or enterprise, from concept to deployment, our computation experts can help you achieve robust results with less time and effort.

✓ **Project Design and Development**

Get custom Wolfram technology applications built for your needs.

✓ **Prototype Development**

Turn your idea into a proof of concept with our rapid prototyping process.

✓ **Web Deployment Solutions**

Provide convenient online interfaces for your tools and information.

✓ **And Much More...**

Tell us about your project, and we'll tell you how we can help.

Already a Wolfram Technology User?

Find out how we can jumpstart your project with in-depth troubleshooting, code optimization, custom training or production deployment.

ADALTA
SOFTWARE PER L'INNOVAZIONE
www.adalta.it/wolfram

1-800-WOLFRAM (965-3726)
+1-217-398-7181 (outside US & Canada)
Wolfram Research, Inc.

+44-(0)1993-883400
(Europe & the Middle East)
Wolfram Research Europe Ltd.

technicalconsulting@wolfram.com

WOLFRAM

© The Wolfram Companies. Trademarks: Wolfram, the Wolfram "Spikey" and Wolfram Language. All other trademarks, service marks, registered trademarks and registered service marks are the property of their respective owners. MKT1916 WLM-10231 09.20VT